

DESCRIPTIONS OF MEXICAN ICHNEUMONIDÆ.

BY E. T. CRESSON.

Most of the species described and enumerated in this paper were collected by Prof. F. Sumichrast in the environs of Orizaba and Cordova, and by him presented to the American Entomological Society, in whose collection the types are to be found. To the late Dr. Charles Sartorius the Society is also indebted for many new and interesting species collected by him in the neighborhood of Mirador.

The collection is exceedingly rich in species, especially of the subfamilies Ichneumonides, Cryptides, Ophionides, and Pimplides; and those belonging to the genera *Ichneumon* and *Mesostenus* are very numerous and variable in form, structure, etc. Many of the species are handsome in ornamentation and brilliant in color.

Genus ICHNEUMON, Linn.

Subgenus PATROCLUS.

This subgenus is at once distinguished from that of *Ichneumon* by the ungues being pectinate. The form is rather slender; the head flat, triangular when viewed in front; the cheeks not at all prominent; the antennæ long and slender, and not involute in ♀, and the scutellum convex or subconvex; ovipositor scarcely or not at all exerted. Only three species are known to me, and may be separated as follows:—

Body entirely blue-black..... 1. *nigrocæruleus*.

Body yellow, much marked above with black..... 2. *lectus*.

Body honey-yellow, abdomen fasciate with black..... 3. *toltecus*.

1. *Patroclus nigrocæruleus*, n. sp.

♀.—Blue-black; thorax deep blue, abdomen tinged with greenish in certain lights; antennæ black, with a broad, yellowish-white annulus; wings violaceus-black; anterior tibiæ yellowish in front. Thorax densely and strongly punctured; metathorax densely rugulose, the elevated lines not well-defined; wings ample, areolet 5-angular; legs slender; abdomen elongate, convex, finely and closely punctured; first segment dilated at tip, which is finely

aciculate; basal fovæ (gastrocoeli) of second segment large, deep, and obliquely striated. Length 6 lines.

Orizaba. (Sumichrast, No. 121.)

2. *Patroclus lectus*.

Ichneumon lectus, Cress., Trans. Am. Ent. Soc., ii. p. 18, ♂ ♀.

Orizaba. (Sumichrast, No. 6.)

3. *Patroclus toltecus*.

Ichneumon toltecus, Cress., Trans. Am. Ent. Soc., ii. p. 17, ♂ ♀.

Orizaba. (Sumichrast, No. 32 ♀, 136 ♂.) The antennæ of the ♂ are black, with the scape ferruginous.

Subgenus ICHNEUMON.

In this subgenus are included a large number of species varying greatly in form, but with such intermediation that no line to divide them even into subgenera can be drawn. The head in some species is large, broad, and buccate, but is gradually reduced to a small, flat, triangular form. The antennæ vary from robust, involute (♀), with very short, almost moniliform, joints, to a very slender form, not at all involute (♀), with elongate joints, and sometimes slightly dilated near the apex, as in *Joppa*. The scutellum varies from being perfectly flat, through convex, conical, to spinose, and even bispinose, with all intermediate grades. So also with the metathorax, which varies from being rounded, with no appearance of lateral protuberances, to truncate behind, with long and acute lateral spines. The species having the last character, together with a slender form, were formerly referred to *Hoplismenus*; but since the examination of so many intermediate forms, it is quite impossible to draw a dividing line between it and *Ichneumon*; therefore, no attempt is made here to divide the species into subgenera.

The following diagnostic table will assist in determining the species:—

Scutellum flat, subconvex, or convex:

Body entirely honey-yellow or ferruginous:

Large; scutellum flat above, lateral margin carinate, sides abrupt; metathorax without spines; antennæ black, with white annulus in ♀..... 8. *dilucidus*.

Medium; scutellum perfectly flat, sides not abrupt; metathorax with short acute spines; antennæ, ♀, tricolored, ferruginous, white and black..... 9. *ablutus*.

- Small; scutellum convex, sides abrupt; metathorax without spines; antennæ ♂ black, with a white annulus 11. **frivolus**.
- Body honey-yellow or ferruginous, slightly marked with black:
- Ferruginous; black band at base of third abdominal segment; antennæ ♀ black, with white annulus and red at base; wings yellow-hyaline; posterior legs ferruginous. 10. **passivus**.
- Ferruginous; black band at base of second and third abdominal segments; wings yellowish, banded with fuliginous; antennæ, ♂ ♀, tricolored. 16. **cupidus**.
- Ferruginous; black band at base of second and third abdominal segments; posterior legs mostly black; wings yellowish, of ♂ dusky at base and apex; antennæ, ♂ ♀, tricolored. 14. **izucarus**.
- Ferruginous; abdominal segments constricted at base; wings blackish, with a broad submedian yellow band. 15. **arrogans**.
- Body yellow, abdomen entirely so:
- Spots on vertex and occiput, a spot on anterior margin of mesothorax, a line on each side over tegulæ, and the antennæ, black. 13. **citrinus**.
- Spot on vertex, mesothorax except four yellow stripes, and the antennæ, black; thorax yellow, legs and abdomen honey-yellow. 12. **additus**.
- Body black; abdomen yellow, with black band on third and fourth segments; legs honey-yellow, apex of posterior femora black; antennæ tricolored; scutellum yellow. 45. **placitus**.
- Head and thorax black; abdomen ferruginous:
- Head and thorax entirely black. 2. **meridionalis**.
- Head and thorax marked more or less with white:
- Metathorax without spines:
- Large; scutellum perfectly flat, margined with white; metathorax entirely black. 3. **mexicanus**.
- Small; scutellum flat above, with two white spots, sides abrupt; meso- and metathorax entirely black; abdomen short, ovate. 4. **totonacus**.
- Metathorax with two spines:
- Small; scutellum flat, with two white spots; mesothorax with two short white discal lines, and metathorax with two white apical spots; abdomen short, ovate, immaculate. 5. **otomitus**.
- Small; scutellum rather flat, white; mesothorax black; metathorax red; abdomen ♂ elongate, polished, more or less blackish on three basal segments above; of ♀ immaculate. 7. **curiatus**.
- Medium; scutellum subconvex, sides abrupt, red at base, white at tip; metathorax entirely red; posterior tibiæ black, their tarsi white. 6. **chiapus**.

- Rather large, slender; scutellum rather flat, white, sides abrupt; mesothorax opaque, with white spot on each side over tegulæ; metathorax with long acute spines, and with a broad black T mark above 65. **rixosus**.
- Body metallic blue-green; legs ferruginous; antennæ black, with white annulus; scutellum flat above with white spot, carinate laterally, sides abrupt 64. **virescens**.
- Body black; apex of abdomen and legs, except apex of posterior femora and tibiæ, yellow; antennæ black with white annulus; scutellum flat in ♀, convex in ♂ 1. **conicus**.
- Body dull-black, opaque; orbits, scutellum, two stripes on metathorax, and narrow band on two or three basal segments of abdomen, white; costal margin of anterior wings fuscous.
17. **opaculus**.
- Body deep black; abdomen long and subcylindrical; with apical margin of first and second segments white..... 18. **junceus**.
- Body black, marked with white or yellowish; abdomen with white or yellow and black bands on all the segments:
Metathorax without prominent lateral tubercles:
Mesothorax with a white or yellow discal spot:
Line on posterior femora above and their tibiæ except tips, black, their tarsi yellow..... 37. **Cholula**.
Apex of posterior femora and tibiæ, and their tarsi black.
52. **amecus**.
- Mesothorax with discal lines abbreviated:
Abdomen long, parallel, coarsely sculptured, gastrocoeli large and very deep..... 36. **prolixus**.
Abdomen shorter, finely and densely punctured, gastrocoeli small, deep; pleura yellow, with a longitudinal black stripe.
19. **zapotecus**.
Abdomen polished, with second segment finely and densely punctured; gastrocoeli small, punctiform; thorax with three large lateral white spots 23. **tepanecus**.
Abdomen entirely polished, impunctured; gastrocoeli subobsolete; thorax with two large lateral white marks, the anterior one larger and oblique 21. **zacatecus**.
Abdomen long, rather slender, granulated, gastrocoeli large, deep:
Posterior thighs black above and within 40. **Toluca**.
Posterior thighs entirely honey-yellow 41. **Chalco**.
Abdomen elongate, depressed; metathorax except basal suture or a basal median black spot, yellow..... 53. **parandus**.
- Mesothorax with discal lines entire:
Metathorax with a central black stripe and slender lateral line.
59. **centrosus**.
Metathorax with a central black stripe and a lateral sub-basal black spot 58. **decorosus**.

- Metathorax with only a central black stripe :
 Posterior femora entirely black 54. **abaculus**.
 Posterior femora black at tips and on upper edge.. 60. **jugiosus**.
 Posterior femora entirely yellow 55. **abitus**.
- Metathorax yellow, with only a black dot on basal middle, most of abdomen yellow, with narrow black bands..... 56. **durus**.
- Metathorax with arcuate blackish line at base, extending down on each side, and an elongate spot at apex..... 63. **monitus**.
- Metathorax with two black basal spots :
 Antennæ ♂ entirely black above 50. **chichimecus**.
 Antennæ ♂ with yellowish annulus..... 61. **limitaris**.
- Metathorax with two oblique black lines, dilated above ; antennæ short, very slender toward tips 62. **tenuicornis**.
- Metathorax with three large black spots above, posterior spot the larger ; abdomen polished ; posterior tibiæ black. 46. **epicus**.
- Metathorax with three black spots above, the two basal ones largest ; abdomen opaque 39. **excuratus**.
- Metathorax with a central, apical, and two confluent black spots ; hind tibiæ with exterior edge black 38. **zaptlanus**.
- Metathorax black above, divided by narrow yellow lines into several elongate spots ; hind femora and tibiæ black at tips.
 57. **Alvarado**.
- Metathorax with two short lines at base ; abdomen long, slender, cylindrical, posterior legs honey-yellow, tarsi yellow.
 51. **teres**.
- Mesothorax with a short white line on each side over the tegulae :
 Scutellum black, with lateral margin white 20. **encaustus**.
 Scutellum entirely white 22. **Parredes**.
- Mesothorax entirely black : metathorax black with a large yellow discal mark 44. **ignarus**.
- Metathorax with prominent lateral tubercles or spines :
 Mesothorax with white discal spot 68. **picturatus**.
- Mesothorax with discal lines abbreviated :
 Posterior tibiæ entirely black, their tarsi white, with most of basal joint black 32. **Arista**.
 Posterior tibiæ yellow, apex black, their tarsi yellow.
 24. **subspinosus**.
- Posterior tibiæ entirely fulvous :
 Basal segment of abdomen with apex white ; metathorax black at base and down middle to apex, three small white spots on basal margin 25. **actuosus**.
 Basal segment of abdomen with apex white ; metathorax above with two longitudinal black lines from base to spines, and a central apical black line 33. **maritus**.
 Basal segment of abdomen with apex yellow, second segment with two oblique black stripes confluent at base ; metathorax with two large black spots near base 48. **abjectus**.

- Basal segment of abdomen with apex black ; metathorax with two dilated longitudinal black lines above ; head unusually large 49. **cephalotes**.
- Basal segment of abdomen with two apical yellow spots. 69. **dissonus**.
- Mesothorax with discal lines entire :
- Metathorax broadly black at base ; posterior femora at tips and within, and apex of their tibiæ, black..... 42. **inoratus**.
- Metathorax broadly black at base ; posterior femora fulvous, apex slightly black, their tibiæ yellow, black at tips 43. **mendicus**.
- Metathorax with four black dots on basal middle ; posterior legs yellow, with femora black..... 47. **nigrofemoratus**.
- Metathorax with three slender black stripes, connected above spines with a broad black band ; posterior femora and tibiæ with black line above 66. **munitus**.
- Mesothorax with a curved line, dilated anteriorly, on each side over tegulæ..... 67. **propinquus**.
- Mesothorax with a spot, or a straight line on each side over tegulæ :
- Metathorax entirely black, mesothorax opaque..... 70. **minax**.
- Metathorax black, with two small spots at base, two elongate ones beneath spines, and a large round one on flanks, all white ; mesothorax polished 26. **Nestor**.
- Metathorax with a broad, cruciform black mark above, slightly interrupted below the transverse bar ; mesothorax shining. 34. **Tuxtla**.
- Metathorax with only two short longitudinal black lines, extending from base to spines ; body shining, long, slender, subcylindrical 30. **intentus**.
- Metathorax with dusky, longitudinal, ill-defined marks above ; scutellum black on middle ; abdomen smooth, and highly polished 71. **limatus**.
- Mesothorax entirely black :
- Posterior femora and tibiæ black at tips..... 27. **Toros**.
- Posterior femora black above, their tibiæ entirely black ; metathorax with three black stripes, connected above spines by a black band..... 35. **solitarius**.
- Posterior femora black above, their tibiæ entirely black, metathorax black at base above, the sides, apex, and an elongate spot on basal middle, whitish 28. **famelicus**.
- Posterior femora above, and more or less of their tibiæ above, black ; metathorax with two broad black lines extending from base to spines, and a narrow, central, black line at apex. 29. **tenebricus**.
- Posterior femora and tibiæ fulvous, the former slightly dusky above ; metathorax with two broad stripes from base to spines, and a bilobed mark at apex ; abdomen short and polished. 31. **gracilentus**.

Scutellum conical, apex obtuse :

- Yellow ; vertex, occiput, three elongate marks on mesothorax, antennæ and posterior tibiæ and tarsi black. 72. **Montezuma.**
- Yellow ; base of abdominal segments with a narrow black band ; mesothorax with three longitudinal black lines ; posterior tarsi black. 73. **exquisitus.**
- Entirely honey-yellow ; antennæ black. 74. **abactus.**

Scutellum conical, apex acute :

- Honey-yellow ; head and antennæ black, marked with white. 75. **occipitalis.**
- Black and yellow or white species :
- Mesothorax black, with central yellow spot ; metathorax with two central stripes. 77. **scutellaris.**
- Mesothorax entirely black ; metathorax with two black spots at base above, sometimes connected ; posterior legs honey-yellow. 76. **esurialis.**
- Mesothorax entirely dull black, opaque ; metathorax and posterior femora black 78. **simulans.**
- Mesothorax black, with three short whitish lines, the anterior one broad ; metathorax blackish above ; posterior femora yellow, their tibiæ and tarsi black. 79. **acclivus.**

Scutellum much elevated, oblique, apex with transverse edge :

- Metathorax with prominent spines :
- Yellow ; abdominal segments with very narrow black band at base ; metathorax entirely yellow ; antennæ and posterior tibiæ and tarsi black. 80. **aztecus.**
- Black above ; abdomen with broad black bands ; metathorax with two sub-basal black spots. 82. **lenis.**
- Metathorax rounded, without spines :
- Metathorax with two sub-basal black spots, connected to base by slender line. 81. **tragicus.**
- Metathorax with areuate black line above. 83. **infulatus.**

*Scutellum bispinose. 84. abnormis.*1. **Ichneumon conicus.**

Joppa conica, Brullé, Hymén. iv. 286. (?) Cresson, Trans. Am. Ent. Soc., ii. 29.

? *Ichneumon breviventris*, Cresson, Proc. Ent. Soc. Phil., iv. 12.

♀.—Black, opaque ; palpi pale ; antennæ with white annulus ; wings hyaline, nervures black ; legs yellow, apex of intermediate femora above, and tips of their tarsi, fuscous ; posterior coxæ, apical half of their femora and apex of their tibiæ, black ; abdomen beyond third segment, and venter yellow. Robust, densely and coarsely punctured, subpubescent ; head large, buccate ; an-

tennæ involute, rather slender; scutellum flat, with elongate, sparse punctures, sides carinate; metathorax gradually sloping behind, the posterior middle excavate; areolet small, 5-angular; legs subrobust; abdomen short, ovate, second and third segments longitudinally aciculate and punctured, basal segment rugose, the basal incisures of second and third segments very deep; first segment broadly and suddenly dilated at apex; gastrocoeli large and deep; apical segments smooth and shining. Length 6-6½ lines.

♂.—Antennæ quite slender; scutellum convex; apical third of wings more or less tinged with fuscous; four anterior legs, except ungues, entirely bright yellow; base of fourth abdominal segment black. Length 6 lines.

Orizaba; Cordova. (Sumichrast, No. 4.) This seems to differ from the unique specimen of the Cuban *Ichneumon breviventris*, Cresson, only by the more dense punctation of the mesothorax, by the sparsely punctured scutellum, and by the first abdominal segment being rugose and not aciculate.

2. *Ichneumon meridionalis*.

Ichneumon meridionalis, Cresson, Proc. Ent. Soc. Phil., iv. 12.

♂ ♀.—Black; antennæ with a white annulus; wings fuscous or black, with a brassy gloss; legs blackish-piceous, the anterior tibiæ and tarsi yellowish in front; abdomen rufo-ferruginous, basal segment black. Form elongate, slender, densely punctured; antennæ involute in ♀; mesothorax granulated; scutellum slightly convex, rugose; metathorax rugose, shining, elevated lines subobsolete; areolet large, 5-angular or subquadrate, the lower apical side very short, the other sides subequal; abdomen elongate, subcylindrical, densely punctured; basal segment deeply punctured at tip. Length 5½ lines.

Orizaba; Mirador. (Sumichrast, No. 59.) This species occurs also in Cuba.

3. *Ichneumon mexicanus*.

Ichneumon mexicanus, Cress., Trans. Am. Ent. Soc., ii. p. 2, ♂ ♀.

Orizaba; Cordova; Mirador. (Sumichrast, No. 11.) Common.

4. *Ichneumon totonacus*.

Ichneumon totonacus, Cress., Trans. Am. Ent. Soc., ii. p. 10, ♂.

Orizaba.

5. *Ichneumon otomitus*.

Hoplismenus otomitus, Cress., Trans. Am. Ent. Soc., ii. p. 21, ♀.

Orizaba.

6. *Ichneumon chiapus*, n. sp.

♂.—Head, antennæ, upper part of prothorax, mesothorax, surroundings of scutellum and posterior tibiæ black; face, orbits interrupted behind summit of eyes, broad annulus on antennæ, anterior margin of prothorax, spot on tip of scutellum, and posterior tarsi except extreme base and ungues, white; remainder, including base of scutellum, fulvo-ferruginous; wings subhyaline. Form slender; antennæ longer than body, slender; head narrowed beneath, scutellum abrupt on sides and apex, lateral margin carinate; metathorax rugose, truncate behind, with two short, obtuse, lateral tubercles; legs long and slender; abdomen elongate, depressed; first segment rugose; gastrocoeli deep and rugose. Length 6 lines.

Cordova.

7. *Ichneumon curiatus*, n. sp.

♀.—Head black; face, mouth, cheeks, and orbits, white; antennæ black, with broad annulus, and scape beneath white; prothorax black, margined with white; mesothorax black, a reddish spot on anterior margin, and two white spots on posterior margin; scutellum pale lemon-yellow, the surrounding space black; pleura and metathorax, legs and abdomen fulvous or honey-yellow, the anterior coxæ pale; wings hyaline, iridescent. Small, shining; head sub-buccate, face short; antennæ slender, involute; upper margin of prothorax prominent; scutellum rather flat; metathorax truncate behind, with two short acute lateral tubercles; abdomen short, ovate, depressed, polished, apex slightly yellowish. Length 8 lines.

♂.—Resembles the ♀, but more slender; the pleura is yellow, with a double black mark beneath wings; the metathorax has two elongate fuscous stains; the first segment of abdomen has a black spot before apex and the second and third, except apical margin, and basal margin of fourth segment are black. Length $3\frac{1}{2}$ lines.

Orizaba.

8. *Ichneumon dilucidus*, n. sp.

♂ ♀.—Ferruginous, opaque; face of ♂ yellowish; antennæ black, base ferruginous, middle of flagellum in ♀ with white an-

nulus; wings hyaline, stained with yellowish. Form robust; antennæ of ♀ robust, involute, of ♂ porreect; body densely punctured; scutellum prominent, flat above, with earinate sides; abdomen longitudinally aciculate above. Length $6\frac{1}{2}$ lines.

Orizaba; Cordova. (Sumichrast, No. 120.)

9. *Ichneumon ablutus*, n. sp.

♀.—Dull honey-yellow; antennæ with broad yellow annulus, apex black, and base yellowish-brown; wings hyaline, nervures and stigma honey-yellow; head buccate; antennæ involute, joints short and robust; thorax depressed, shagreened; scutellum flat; metathorax with well-defined elevated lines, forming a quadrate central area, apex truncate and excavate, with short, prominent, subacute lateral tubercles; legs robust; abdomen oblong-ovate, basal segment gradually dilated to apex, with a long, rather slender petiole, the apex above faintly aciculate; remaining segments smooth, shining, and subpubescent, except base of second, which is faintly transversely aciculate; gastrocoeli obsolete. Length 4 lines.

Orizaba.

10. *Ichneumon passivus*, n. sp.

♀.—Dull honey-yellow, opaque; antennæ black, with a narrow yellowish annulus, base reddish; face yellow; wings yellowish-hyaline, a dark line along basal transverse nervure, and a dark spot covering areolet, the extreme apex faintly clouded; mesothorax and base of second abdominal segment tinged with reddish-brown; base of third segment with a black band. Head flat, not buccate, eyes large and prominent; antennæ slender, not involute, joints elongate; thorax shagreened; scutellum flat above, abrupt on sides, with carinate edge; metathorax gradually sloping behind, with prominent, subacute lateral tubercles, the elevated lines subobsolete; wings ample, areolet small, triangular; legs long and rather slender; abdomen elongate, minutely punctured, basal segment smooth and shining, with long slender petiole, rather suddenly dilated at apex; gastrocoeli large, deep, and transverse. Length $5\frac{1}{2}$ lines.

Orizaba.

11. *Ichneumon frivolus*.

Ichneumon frivolus, Cress., Trans. Am. Ent. Soc., ii. p. 11, ♂.

Orizaba; Cordova.

12. *Ichneumon additus*, n. sp.

♂.—Lemon-yellow; broad stripe on vertex, covering ocelli and posterior margin of occiput, and the antennæ except scape (apical half wanting), black; mesothorax black, with two central yellow lines, confluent behind; lateral region of scutellum, spot beneath tegulæ, and extreme base of first abdominal segment, black; wings hyaline, iridescent; posterior legs pale fulvous, their tarsi blackish; abdomen pale fulvous, with incisures of segments pale. Small, head not buccate; scutellum flat; metathorax rugose, subtruncate behind, elevated lines well defined; abdomen elongate, convex, sides subparallel. Length $3\frac{1}{2}$ lines.

Orizaba.

13. *Ichneumon citrinus*, n. sp.

♂.—Citron or lemon-yellow; spot inclosing ocelli, sometimes two spots on occiput, antennæ except scape, and three short, broad stripes on mesothorax, the middle one sometimes reduced to a spot in front, black; wings smoky-hyaline, nervures black. Head broad, buccate; scutellum rather flat; metathorax rugose, truncate behind, elevated lines tolerably well defined; legs robust; abdomen elongate, depressed; gastrocoeli punctiform, not deep. Length $6\frac{1}{2}$ lines.

Orizaba. (Sumichrast, No. 140.)

14. *Ichneumon izucarus*, n. sp.

♀.—Brown-ferruginous; antennæ tricolored, ferruginous, yellow and black; wings yellowish-hyaline, nervures pale fulvous; posterior tibiæ and tarsi black; abdomen tinged with yellowish on apical half of three basal segments; second and third segments with a broad black band at base. Form robust; head buccate; antennæ short, robust, involute, joints short; scutellum subconvex; metathorax granulated, truncate, and excavate behind, elevated lines well-defined; abdomen oblong-ovate, densely granulated, gastrocoeli small. Length $5\frac{1}{2}$ lines.

♂.—More slender; face yellow; antennæ bicolor—base yellow, apex black; thoracic sutures black; wings stained with fuliginous at base and apex; legs black, anterior pair, except coxæ, most of intermediate tibiæ, their tarsi and posterior tarsi except base, yellow; four basal segments of abdomen stained with lemon-yellow at tips, the fourth having the basal suture black; second and third segments as in female. Length 6 lines.

Orizaba; Cordova.

15. *Ichneumon arrogans*, n. sp.

♀.—Ferruginous, opaque; apex of mandibles black; antennæ tricolored—red, yellow, and black; thoracic sutures black; wings blackish, with a broad, median, yellow band, the stigma and nervures within the band yellow, the remainder black; legs black, anterior pair more or less ferruginous; base of first segment of abdomen, and basal sutures of second and third, black, venter yellow. Subrobust, densely punctured; head large, subquadrate, buccate; antennæ slender, involute, joints short and robust; scutellum flat above, sides abrupt; metathorax truncate behind, elevated lines well defined; abdomen elongate, slightly constricted at base, gastrocoeli rather small and deep; apex of first segment with rather large punctures. Length $5\frac{1}{2}$ –6 lines.

♂.—More slender; scutellum sometimes tinged with yellowish; legs ferruginous, varied with yellow, the posterior pair generally black, with apex of tarsi yellow. Length $6\frac{1}{2}$ lines.

Orizaba; Cordova. (Sumichrast, No. 159.)

16. *Ichneumon cupidus*, n. sp.

♀.—Brown-ferruginous, opaque; antennæ brown-ferruginous at base, yellow in middle and black at tips; wings yellow-hyaline, anterior pair with two broad transverse blackish bands, and apex dusky; nervures, except where passing through the bands, yellowish; tips of posterior tibiæ blackish, their tarsi yellowish; base of third abdominal segment occupied by a rather broad black band, and sometimes a blackish stain at base of second segment. Head flat, not buccate; eyes large; antennæ long and slender, not involute, joints elongate; scutellum flat above, sides abrupt, with carinate edge; metathorax densely sculptured, with a silvery sericeous reflection in certain lights, gradually sloping to apex, with short, subacute, lateral tubercles, elevated lines obsolete; legs subrobust; abdomen minutely sculptured; gastrocoeli transverse, rather large and deep.

♂.—More slender in form, with the face and anterior legs tinged with yellowish. Length $4\frac{1}{2}$ lines.

Orizaba. (Sumichrast, No. 110.) This closely resembles *Cryptus cestus*, Say, in size and ornamentation.

17. *Ichneumon opaculus*, n. sp.

♂ ♀.—Opaque black; orbits, interrupted above, two dots beneath antennæ, two more on upper margin of clypeus, upper mar-

gin of prothorax, line on tegulæ, another beneath tegulæ, another beneath hind wing, base of scutellum, a line on each side before, postscutellum, two stripes on metathorax—confluent at tip, one or more dots on each side of pleura, most of middle eoxæ, stripe on posterior pair, stripe on all the femora and tibiæ, and narrow apical margin of first four segments of abdomen, sometimes only of first two, lemon-yellow; antennæ brown-black, fulvous beneath; wings subhyaline, costa brown. Antennæ long and slender in ♂, shorter and subrobust in ♀; scutellum subconvex; abdomen ovate, first segment slender, slightly enlarged at tip. Length $4\frac{1}{2}$ – $5\frac{1}{2}$ lines.

Orizaba; Cordova. (Sumiehrast, No. 107.)

18. *Ichneumon junceus*, n. sp.

♂.—Black; sides of face, narrow orbits, seape within, spot on mandibles, palpi, upper margin of prothorax—interrupted in middle, tegulæ, short line beneath, scutellum, postscutellum, irregular W-shaped mark on apex of metathorax, tips of four anterior femora, their tibiæ and tarsi entirely, spot on posterior eoxæ behind, their tibiæ except tips, and apex of first two abdominal segments, yellowish-white; wings subhyaline, dusky at tips; head, thorax, and legs pubescent. Abdomen long, narrow, cylindrical. Length $6\frac{1}{2}$ lines.

Cordova.

19. *Ichneumon zapotecus*.

Ichneumon zapotecus, Cress., Trans. Am. Ent. Soc., ii. p. 3, ♀.

Cordova. (Sumiehrast, Nos. 27 and 93.)

20. *Ichneumon encaustus*.

Ichneumon encaustus, Cress., Trans. Am. Ent. Soc., ii. p. 4, ♂ ♀.

Orizaba; Cordova. (Sumiehrast, No. 8.) The ♂ differs from the ♀ only in being smaller and much more slender. Length $4\frac{1}{2}$ –5 lines.

21. *Ichneumon zacatecus*, n. sp.

♀.—Differs from *encaustus*, as follows: the mesothorax has two short yellowish discal lines, confluent behind, and there is no yellowish spot on each side of tegulæ; the apical half of scutellum is yellowish; all the femora are entirely black within; the base of second abdominal segment is entirely black; and the gastrocoeli shallow. Same size.

Orizaba.

22. *Ichneumon Parredes*.*Ichneumon Parredes*, Cress., Trans. Am. Ent. Soc., ii. p. 4, ♀.

Orizaba.

23. *Ichneumon tepanecus*.*Ichneumon tepanecus*, Cress., Trans. Am. Ent. Soc., ii. p. 5, ♀.

Orizaba ; Cordova. (Sumichrast, No. 55.)

24. *Ichneumon subspinosus*.*Ichneumon subspinosus*, Cress., Trans. Am. Ent. Soc., ii. p. 17.Orizaba ; Cordova. (Sumichrast, No. 90.) This may be the ♂ of *tepanecus*.25. *Ichneumon actuosus*, n. sp.

♂.—Closely resembles *subspinosus*, but differs, as follows: While the scutellum and postscutellum proper are yellow, as usual, the lateral region is entirely black, and not margined posteriorly with yellow; the metathorax has no lateral black stripe—only a central one, the extreme lateral margin is broadly black, and the spines are much shorter; posterior femora and tibiæ dark fulvous, the former darker and fuscous above; their tibiæ yellow; apex of abdomen tinged with fulvous. Length 5 lines.

Orizaba. (Sumichrast, No. 89.)

26. *Ichneumon Nestor*.*Ichneumon Nestor*, Cress., Trans. Am. Ent. Soc., ii. p. 13, ♀.

Cordova.

27. *Ichneumon Toros*.*Ichneumon Toros*, Cress., Trans. Am. Ent. Soc., ii. p. 14, ♀.

Cordova. (Sumichrast, No. 26.)

28. *Ichneumon famelicus*.*Ichneumon famelicus*, Cress., Trans. Am. Ent. Soc., ii. p. 14, ♂.

Cordova. (Sumichrast, No. 25.)

29. *Ichneumon tenebricus*.*Ichneumon tenebricus*, Cress., Trans. Am. Ent. Soc., ii. p. 15, ♂ ♀.Orizaba ; Cordova ; Mirador. (Sumichrast, Nos. 62, 91, 92.) Varies in length from $4\frac{1}{2}$ to 7 lines. A common species.30. *Ichneumon intentus*.*Ichneumon intentus*, Cress., Trans. Am. Ent. Soc., ii. p. 15, ♂ ♀.Orizaba ; Cordova. (Sumichrast, No. 117.) Varies in length from $4\frac{1}{2}$ to $7\frac{1}{2}$ lines. Also common.

31. *Ichneumon gracilentus*.

Ichneumon gracilentus, Cress., Trans. Am. Ent. Soc., ii. p. 16, ♂ ♀.
Cordova. (Sumichrast, No. 125.)

32. *Ichneumon Arista*.

Ichneumon Arista, Cress., Trans. Am. Ent. Soc., ii. p. 16, ♂ ♀.
Orizaba; Cordova. (Sumichrast, No. 118.) Varies in length
from 6 to 8 lines.

33. *Ichneumon maritus*.

Ichneumon maritus, Cress., Trans. Am. Ent. Soc., ii. p. 16, ♂ ♀.
Cordova. (Sumichrast, Nos. 9 and 60.)

34. *Ichneumon Tuxtla*.

Ichneumon Tuxtla, Cress., Trans. Am. Ent. Soc., ii. p. 17, ♀.
Cordova.

35. *Ichneumon solitarius*, n. sp.

♂.—Black; face, mouth, orbits—broad on cheeks, broad annulus on antennæ, collar, tegulæ, line beneath, scutellum, postscutellum, metathorax (except three black stripes, connected by a slender black cross-line above spines), sides of pleura and beneath, base of first abdominal segment, lateral and apical margins of remaining segments and base of second and third, clay-white; legs luteous; spot on four posterior coxæ, all the femora above, four anterior tibiæ exteriorly, posterior pair entirely and base of their tarsi, black; wings hyaline, nervures black. Head and thorax robust, the former broad and sub-buccate, eyes large and prominent; thorax gibbous; scutellum flat; metathoracic spines long and acute; legs slender; abdomen long, slender, flat, especially towards apex; gastrocoeli deep. Length 6 lines.

Orizaba.

36. *Ichneumon prolixus*, n. sp.

♂.—Head yellow; vertex, except orbits, occiput and antennæ, except narrow whitish annulus and scape beneath, black; thorax yellow; prothorax, except margins, mesothorax, except two short discal lines, apex of scutellum, and the surrounding space, double line beneath wings, and three connected spots on metathorax above, black; tegulæ yellow; wings dusky hyaline, nervures black; legs yellow; apical line on four anterior femora behind, and line on posterior femora above and beneath confluent at tip within, black; abdomen black above, yellow beneath; apex of all the

segments above broadly yellow, dilated laterally on second and following segments; gastrocoeli yellow. Form elongate; head and thorax robust; abdomen depressed; head buccate; scutellum flat; metathorax truncate behind, no lateral tubercles; abdomen densely and longitudinally sculptured; gastrocoeli deep and transverse. Length 8 lines.

Cordova.

37. *Ichneumon Cholula*.

Ichneumon Cholula, Cress., Trans. Am. Ent. Soc., ii. p. 5, ♀.

Cordova. (Sumichrast, No. 85.)

38. *Ichneumon zaptlanus*, n. sp.

♀.—Head yellow, middle of vertex and occiput black; antennæ black, scape beneath and broad annulus on flagellum, yellowish-white; prothorax and mesothorax black, margins of former and two central longitudinal, entire lines on latter, tegulæ, spot on each side behind, apex of scutellum, and postscutellum, yellow; metathorax yellow, with a central sub-basal, an apical and two lateral confluent, black spots; pleura yellow, with small black spot beneath wings; wings fusco-hyaline, nervures black; legs yellow; large spot on posterior coxæ above, all the femora above and apex within, and line on all the tibiæ behind, black; abdomen yellow, with a large, transverse black mark on each dorsal segment, occupying nearly the whole surface. Form robust; head buccate; scutellum flat, apex abrupt; metathorax rugose, without tubercles or spines; abdomen depressed, surface densely rugose, the segments more or less deeply incised at base; gastrocoeli deep and transverse. Length $6\frac{1}{2}$ lines.

Orizaba.

39. *Ichneumon excuratus*, n. sp.

♂.—Yellow; vertex and occiput, except orbits, spot on each side of prothorax, mesothorax, except two entire central yellow lines and a short line over tegulæ, scutellar region, two basal and an apical spot on metathorax, sutures of pleura, spot on all the coxæ, a line on all the femora above or within, spot near apex of first abdominal segment and all the remaining segments except broad apical margins, black; antennæ black above, fuscous beneath, scape beneath and a narrow annulus on flagellum, yellow; wings yellow-hyaline, dusky at tips, stigma and nervures fulvous;

tarsi tinged with fuscous. Elongate; head buccate; antennæ subserrate; scutellum subconvex; metathorax rounded, without tubercles; spines; abdomen subclavate, densely sculptured, gastrocoeli deep. Length $6\frac{1}{2}$ lines.

Cordova. (Sumichrast, No. 147.)

40. *Ichneumon Toluca*.

Ichneumon Toluca, Cress., Trans. Am. Ent. Soc., ii. p. 6, ♂.

Cordova. (Sumichrast, No. 73.)

41. *Ichneumon Chalco*.

Ichneumon Chalco, Cress., Trans. Am. Ent. Soc., ii. p. 7, ♂.

Cordova. (Sumichrast, No. 96.) This may be a variety of *Toluca*.

42. *Ichneumon inoratus*, n. sp.

♂.—Yellow; middle of vertex and occiput, antennæ except scape beneath and annulus on flagellum above, two dots on middle of prothorax, mesothorax except two entire discal lines, and another on each side over tegulæ, apex of scutellum and lateral region, broad band on base of metathorax above, and a spot on apical middle, spot on pleura beneath wings, and a spot beneath behind each anterior coxa, and abdomen except narrow apical band on each segment, black; legs yellow, the femora, especially posterior pair, tinged with fulvous; spot on apex of posterior coxæ, a stripe on all the femora behind, apex of posterior pair and apex of their tibiæ, black; wings yellowish-hyaline, nervures brown, stigma honey-yellow. Head narrow, not buccate; antennæ long and slender; scutellum flat; metathorax truncate behind, with the lateral spines short and acute; first and second abdominal segments densely punctured and opaque, remainder smooth and shining; posterior femora robust. Length 6 lines.

Mirador.

43. *Ichneumon mendicus*, n. sp.

♀.—Yellow; stripe on vertex confluent with large spot on occiput, antennæ except scape beneath and broad annulus on flagellum, spot on middle of prothorax, mesothorax except four longitudinal stripes, lateral region of scutellum, broad band on base of metathorax and lateral and apical sutures, apex of posterior coxæ, and of their tibiæ and of all the tarsi, and the abdomen except broad apical margins of all the segments, black; wings

hyaline, irideseent; all the femora fulvo-ferruginous, with the apex of posterior pair sometimes black. Small, shaped and sculptured like *inorata*, except that the head is broader; legs robust. Length 4 lines.

Orizaba.

44. *Ichneumon ignarus*, n. sp.

♂.—Black, opaque; face below antennæ, scape beneath, broad annulus on flagellum above, tegulæ, dot before and line beneath, scutellums, large irregular mark on metathorax behind, four anterior legs, posterior trochanters, extreme base of their femora, their tibiæ except apex, their tarsi entirely, broad apical bands on four basal segments of abdomen, and narrow one on fifth segment, yellow; antennæ beneath and at base above, and four anterior femora behind, fulvous; wings yellowish-hyaline, dusky at tips, stigma fulvous. Small and rather slender, head not buccate, scutellum flat; metathorax without tubercles or spines; legs slender. Length $4\frac{1}{2}$ lines.

Cordova. (Sumiehrast, No. 108.)

45. *Ichneumon placitus*, n. sp.

♀.—Black, opaque; anterior orbits, dilated on face and extending beneath eyes, clypeus, base of mandibles, and basal half of antennæ, yellowish-ferruginous; palpi and middle of antennæ yellow; apical third of antennæ black; line on collar, scutellum, spot on postscutellum, and indistinct spot on each side of metathorax posteriorly, yellow; tegulæ pale ferruginous; wings yellowish-hyaline, nervures pale fulvous, stigma yellowish; legs yellowish-ferruginous, coxæ, base of trochanters and apical half of posterior femora black; abdomen yellowish-ferruginous, second segment paler; first segment, except apex, and broad band at base of third and fourth segments, black; a sub-basal dusky spot on each side of second segment. Small, robust; head not buccate; antennæ rather robust, involute, joints short; scutellum subconvex, shining, sparsely punctured; metathorax rugose, with tolerably well defined elevated lines, apex truncate, with lateral tubercles short and obtuse; legs robust; abdomen oblong-ovate, depressed, very minutely sculptured. Length 4 lines.

Mirador.

46. *Ichneumon epicus*, n. sp.

♂.—Black; face, mouth, orbits, cheeks, scape beneath, annulus

on flagellum, margins of prothorax, two entire stripes on mesothorax, a line on each side over tegulae, spot on each side before scutellum, scutellums, pleura except angular mark beneath wings, and spot above each anterior coxa, yellow; metathorax yellow, with three large black spots above, the apical one largest, and a black stripe dilated above on lateral suture; tegulae pale yellow, pupilled with fuscous; wings dusky hyaline; legs yellow, stripe on all the femora above, tips of all the tarsi, most of posterior coxae above, and their tibiae except extreme base and apex, black; abdomen black above; apex of all the segments with a yellow band, broad and regular on the first and second, and much narrowed, sometimes suddenly so, on remaining segments; venter yellow. Form slender, shining; head sub-buccate; antennae long and slender; thorax closely punctured; scutellum flat; metathorax truncate behind, with prominent lateral tubercles; abdomen polished, gastrocoeli small, marked by a yellowish linear mark. Length $4\frac{1}{2}$ lines.

Mirador.

47. *Ichneumon nigrofemoratus*, n. sp.

♂.—Yellowish-white; spot behind antennae, another covering ocelli and connected with a large spot on occiput, antennae except scape beneath and broad white annulus beyond middle of flagellum, large triangular mark on each side of prothorax, mesothorax except two longitudinal lines dilated on disk, lateral region of scutellums, four dots (arranged in a square) on base of metathorax, two or three dots beneath wings, posterior femora entirely, subapical spot on first abdominal segment, large sub-triangular spot on second, and basal half of each remaining segment, black; wings yellowish-hyaline, stigma luteous; tips of posterior tibiae faintly fulvous. Form slender; head sub-buccate; antennae as long as body, slender; scutellum flat; metathorax truncate behind, with two short acute spines; legs slender; abdomen flattened. Length $4\frac{1}{2}$ lines.

Orizaba.

48. *Ichneumon abjectus*, n. sp.

♂.—Head white, middle of vertex and occiput black; antennae black, with a broad white annulus; thorax black, with collar, margins of prothorax, two short discal lines on mesothorax, two spots on posterior margin, tegulae, scutellums, and most of pleura, white; metathorax, legs, and abdomen more or less tinged with

fulvous, the former with two large black spots above in front of spines; a dot near apex of first abdominal segment, an angular line on the second and basal margin of following segments, black; wings hyaline, iridescent. Small, slender; head broad, buccate; scutellum flattened; metathorax with the spines very short and acute; legs long and slender; abdomen smooth and polished. Length 3 lines.

Cordova. (Sumichrast, No. 132.)

49. *Ichneumon cephalotes*, n. sp.

♀.—Head white, vertex and occiput, except orbits, black; antennæ entirely black, except broad white annulus on middle of flagellum; thorax white; prothorax except margins, mesothorax except two central abbreviated lines, scutellar regions and two broad stripes on metathorax above, black; legs pale fulvous, coxæ white, base of posterior pair and extreme tips of tarsi black; abdomen black, with petiole and apex of all the segments white; wings hyaline, beautifully iridescent. Small, slender, smooth and polished; head very large, subglobose, buccate; eyes ovate, prominent; antennæ long and slender; scutellum subconvex; metathorax with lateral spines very minute; legs subrobust. Length 3 lines.

Mirador. Readily distinguished by the large subglobose head.

50. *Ichneumon chichimecus*.

Ichneumon chichimecus, Cress., Trans. Am. Ent. Soc., ii. p. 19, ♂.

Orizaba; Cordova. (Sumichrast, No. 113.) Common.

51. *Ichneumon teres*.

Ichneumon teres, Cress., Trans. Am. Ent. Soc., ii. p. 18, ♂.

Cordova. (Sumichrast, No. 28.)

52. *Ichneumon amecus*, n. sp.

♂.—Lemon-yellow, opaque; middle of vertex and occiput, antennæ except scape beneath, spot on each side of prothorax, mesothorax except a yellow discal spot and a short line over tegulæ, space around scutellum, basal suture of metathorax, two spots above connected at base, posterior coxæ within, their trochanters, apex of femora and tibiæ and their tarsi, black; wings hyaline, faintly yellowish; femora fulvous, posterior pair except apex, rufous; abdomen tinged with fulvous; base of all the segments, except second, irregularly black. Form elongate, rather slender;

head sub-buccate; antennæ long and slender; scutellum subconvex; metathorax truncate behind, lateral tubercles short, not prominent, elevated lines sharply defined; legs slender; abdomen narrow, subconvex; gastrocoeli elongate, shallow. Length 6 lines.

Mirador.

53. *Ichneumon parandus*, n. sp.

♂.—Head yellow, middle of vertex, and occiput, black; antennæ black, scape yellow beneath, and flagellum with a fulvous annulus about the middle; thorax yellow; middle of prothorax, mesothorax, except two discal lines, generally abbreviated and confluent behind; sutures of scutellum and of metathorax, sometimes a spot on basal middle, spot beneath posterior wings, and two large spots on pleura beneath, between four anterior coxæ, black; wings yellowish-hyaline, stigma fulvous; legs yellow, femora more or less fulvous, posterior coxæ beneath and within, their femora within and generally irregularly so without, and apical half of their tibiæ, black; abdomen black, with apex of each segment more or less broadly yellow; venter yellow, marked with black. Head sub-buccate; scutellum large and convex; metathorax truncate behind, without lateral tubercles; abdomen oblong-ovate, densely sculptured; gastrocoeli obsolete. Length $6\frac{1}{2}$ lines.

Orizaba; Cordova; Mirador.

54. *Ichneumon abaculus*, n. sp.

♂.—Head and thorax yellow; middle of vertex, occiput, antennæ except scape beneath, mesothorax except two entire central lines and a spot on each side over tegulæ, lateral region of scutellum, basal and apical sutures of metathorax and a stripe down the middle, a stain beneath wings and the pleura beneath and between the four anterior coxæ, black; wings yellowish-hyaline, nervures and stigma honey-yellow; legs yellow, four anterior femora behind and posterior coxæ beneath, fuscous; posterior femora and apex of their tibiæ black; abdomen above black, with apex of all the segments yellow, the bands becoming gradually narrower towards apex of abdomen. Form elongate, subrobust; head sub-buccate; scutellum subconvex; metathorax rounded, with sharply defined elevated lines and no lateral tubercles or

spines; abdomen elongate, slender at base, gastrocoeli moderate, genital organs largely developed. Length $6\frac{1}{2}$ -7 lines.

Orizaba.

55. *Ichneumon abitus*, n. sp.

♂.—Yellow; a spot on vertex connected with a line extending from eye to eye, and also to posterior margin of occiput, antennæ except scape beneath, spot on middle of prothorax, three longitudinal lines on mesothorax, basal suture of metathorax, an interrupted line down the middle, tips of posterior tibiæ, their tarsi except base, spot on middle of first abdominal segment, basal half of the second, third, and fourth, and base of remaining segments narrowly, black; wings hyaline, tinged with yellowish, stigma pale honey-yellow; legs faintly tinged with fulvous. Form rather slender; head not buccate; scutellum subconvex; metathorax rounded, without lateral tubercles or spines. Length 5 lines.

Cordova. (Sumichrast, No. 106.)

56. *Ichneumon durus*, n. sp.

♂.—Yellow; spot on vertex, transverse line on occiput, antennæ except scape, three broad lines on mesothorax, basal suture of metathorax and spot on basal middle, spot beneath tegulæ, extreme tips of posterior tibiæ and sometimes of femora, their tarsi except base, a narrow irregular band on base of second abdominal segment, broader ones dilated on middle posteriorly on third and fourth segments, and narrow one on the fifth, all black; wings yellow-hyaline, nervures and stigma honey-yellow. Form rather slender; head not buccate; scutellum subconvex; metathorax rounded, without tubercles or spines. Length $6\frac{1}{2}$ lines.

Cordova. (Sumichrast, No. 156.)

57. *Ichneumon Alvarado*.

Ichneumon Alvarado, Cress., Trans. Am. Ent. Soc., ii. p. 7. ♂.

Orizaba; Cordova. (Sumichrast, No. 112.) Common. The antennæ of ♀ are black above with a whitish annulus, fulvous beneath, with black tips, robust, and involute. This species varies in length from 6 to $7\frac{1}{2}$ lines.

58. *Ichneumon decorosus*.

Ichneumon decorosus, Cress., Trans. Am. Ent. Soc., ii. p. 8. ♂.

Cordova.

59. *Ichneumon centrosus*.

Ichneumon centrosus, Cress., Trans. Am. Ent. Soc., ii. p. 8, ♂.
Cordova. (Sumichrast, No. 71.)

60. *Ichneumon jugiosus*.

Ichneumon jugiosus, Cress., Trans. Am. Ent. Soc., ii. p. 9, ♂ ♀.
Orizaba; Cordova. The antennæ of ♂ are entirely black, except the scape beneath which is yellow.

61. *Ichneumon limitaris*.

Ichneumon limitaris, Cress., Trans. Am. Ent. Soc., ii. p. 9, ♂.
Cordova.

62. *Ichneumon tenuicornis*.

Ichneumon tenuicornis, Cress., Trans. Am. Ent. Soc., ii. p. 9, ♂.
Cordova. (Sumichrast, Nos. 72 and 98.)

63. *Ichneumon monitus*.

Ichneumon monitus, Cress., Trans. Am. Ent. Soc., ii. p. 10, ♀.
Cordova.

64. *Ichneumon virescens*, n. sp.

♀.—Head and thorax dark metallic green; face, orbits, margins of prothorax, tegulæ, transverse line beneath, curved line behind anterior coxæ, and spot on apex of scutellum, luteous; antennæ black, with broad white annulus, scape luteous beneath; wings yellowish-hyaline, nervures brown; legs rufous, four anterior coxæ and trochanters beneath, luteous; posterior legs with a violet reflection, tips of their femora and tibiæ blue-black; abdomen steel-blue, changing to green in certain lights; basal segment green. Form elongate, slender; head flat, triangular, eyes prominent; antennæ as long as body, slender, not involute; thorax very densely and rather coarsely punctured; scutellum flat above, abrupt on sides and apex, lateral edge carinate; metathorax truncate and excavate behind, lateral tubercles short and obtuse; wings long, narrow, areolet triangular; legs slender; abdomen elongate, depressed, shining toward apex; first segment rugose and bicarinate, the second and third segments, except apical margins, densely sculptured; gastrocoeli large, deep, and oblique. Length 7 lines.

Mirador.

65. *Ichneumon rixosus*.

Hoplismenus rixosus, Cress., Trans. Am. Ent. Soc., ii. p. 20, ♀.
Cordova.

66. *Ichneumon munitus*.*Hoplismenus munitus*, Cress., Trans. Am. Ent. Soc., ii. p. 21, ♂ ♀.

Orizaba; Cordova. (Sumichrast, No. 2.) Common.

67. *Ichneumon propinquus*.*Hoplismenus propinquus*, Cress., Trans. Am. Ent. Soc., ii. p. 22, ♀.

Cordova.

68. *Ichneumon picturatus*.*Ichneumon picturatus*, Cress., Trans. Am. Ent. Soc., ii. p. 22, ♀.

Cordova.

69. *Ichneumon dissonus*.*Hoplismenus dissonus*, Cress., Trans. Am. Ent. Soc., ii. p. 23, ♀.

Cordova.

70. *Ichneumon minax*.*Hoplismenus minax*, Cress., Trans. Am. Ent. Soc., ii. p. 23, ♂ ♀.

Orizaba; Cordova. (Sumichrast, Nos. 48 and 98.) Common.

71. *Ichneumon limatus*.*Hoplismenus limatus*, Cress., Trans. Am. Ent. Soc., ii. p. 24, ♂ ♀.

Cordova.

72. *Ichneumon Montezuma*.*Ichneumon Montezuma*, Cress., Trans. Am. Ent. Soc., ii. p. 13, ♂.

Cordova. (Sumichrast, No. 57.)

73. *Ichneumon exquisitus*.*Ichneumon exquisitus*, Cress., Trans. Am. Ent. Soc., ii. p. 12, ♂ ♀.

Orizaba; Cordova. (Sumichrast, Nos. 36, 37, 56.) Common.

74. *Ichneumon abactus*, n. sp.

♂.—Fulvo-ferruginous, opaque; face yellow; antennæ, except scape which is reddish, black; wings yellowish-hyaline, with a brilliant golden gloss, nervures and stigma black. Form slender, especially of abdomen; head not buccate; scutellum obtusely conical; metathorax with sharply defined elevated lines and with the lateral spines acute and prominent; abdomen narrow, very slender at base. Length $4\frac{1}{2}$ lines.

Mirador.

75. *Ichneumon occipitalis*.*Hoplismenus occipitalis*, Cress., Trans. Am. Ent. Soc., ii. p. 24, ♂ ♀.

Orizaba; Cordova. (Sumichrast, No. 51.) A common species.

76. *Ichneumon esurialis*.

Hoplismenus esurialis, Cress., Trans. Am. Ent. Soc., ii. p. 25, ♂ ♀.

Orizaba; Cordova. (Sumichrast, No. 12.) Common.

77. *Ichneumon scutellaris*.

Hoplismenus scutellaris, Cress., Trans. Am. Ent. Soc., ii. p. 26, ♂ ♀.

Orizaba; Cordova; Mirador. (Sumichrast, Nos. 99, 122, 131.)
Common. Varies in length from 4 to $5\frac{1}{2}$ lines.

78. *Ichneumon similans*, n. sp.

♂.—Black, opaque; face, orbits, cheeks, scape beneath, narrow annulus beyond middle of flagellum, collar, upper and lower margins of prothorax, tegulae, line beneath, most of scutellums, apex of metathoracic spines, pleura beneath, and narrow posterior margin beneath posterior wings, and first abdominal segment except subapical black spot, pale luteous; wings subhyaline, nervures and stigma black; legs luteous, posterior coxae above, their femora entirely, apex of their tibiae and basal joint of their tarsi, black; four anterior femora and tibiae somewhat fulvous behind. Form same as that of *acclivus*, with the scutellum less acute. Length $7\frac{1}{2}$ lines.

Mirador.

79. *Ichneumon acclivus*.

Hoplismenus acclivus, Cress., Trans. Am. Ent. Soc., ii. p. 25, ♂.

Cordova. (Sumichrast, No. 95.)

80. *Ichneumon aztecus*.

Ichneumon aztecus, Cress., Trans. Am. Ent. Soc., ii. p. 20, ♂

Orizaba; Isthmus of Tehautepec. (Sumichrast, No. 60.)

81. *Ichneumon tragicus*.

Ichneumon tragicus, Cress., Trans. Am. Ent. Soc., ii. p. 11, ♂.

Cordova. (Sumichrast, No. 30.)

82. *Ichneumon lenis*.

Ichneumon lenis, Cress., Trans. Am. Ent. Soc., ii. p. 19, ♀.

Orizaba; Cordova. (Sumichrast, No. 21.)

83. *Ichneumon infulatus*.

Ichneumon infulatus, Cress., Trans. Am. Ent. Soc., ii. p. 12, ♀.

Cordova.

84. *Ichneumon abnormis*.

Hoplismenus abnormis, Cress., Trans. Am. Ent. Soc., ii. p. 26, ♀.

Cordova. (Sumichrast, No. 23.)

Subgenus *ÆDICEPHALUS*.

In this subgenus the head is unusually large and swollen, very broad behind the eyes, the occiput deeply emarginate, the mandibles very broad; antennæ generally longer than the body; thorax robust; scutellum very broad, subquadrate, unituberculate, more or less prominent; metathorax short and broad, rather suddenly truncated behind, lateral tubercles very small or altogether wanting; wings long, areolet 5-angular; legs long, more robust than usual, posterior tibiæ incrassate toward the tips, the inner spur longer than usual; abdomen short, ovate in ♀, subdepressed, petiole slender, apex of first segment very broadly dilated, gastrocoeli broad, transverse and very deep, the second segment generally longitudinally aciculated.

1. *Ædicephalus longicornis*.

Ædicephalus longicornis, Cress., Trans. Am. Ent. Soc., ii. p. 27, ♀.

Cordova.

2. *Ædicephalus sororius*.

Ædicephalus sororius, Cress., Trans. Am. Ent. Soc., ii. p. 28.

♀.—Black, face, orbits interrupted a little below summit of eyes; cheeks, clypeus, mandibles except tips, palpi, annulus on antennæ, collar, tegulæ, a line before wings, two abbreviated lines on disk of mesothorax, two spots behind on each side of base of scutellum, whole of pectus, scutellum except a central black line, and a transverse line on postscutellum, white; metathorax white, with a black band near base, from which proceeds on each side a longitudinal black stripe; wings hyaline, nervures and stigma black; legs pale lemon-yellow, tips of posterior tarsi white, spot at tips of posterior coxæ, line on all the femora above, line on the four anterior tibiæ, most of their tarsi and bases of posterior tibiæ, black; first abdominal segment white, with a broad black band near the tip; second segment black, with a broad white apical margin and a white line on each side in front of gastrocoeli; remaining segments white, more or less black at the base. Polished; scutellum elevated into an obtuse tubercle; abdomen as in *longicornis*. Length $4\frac{1}{2}$ lines.

Cordova. (Sumichrast, No. 84.) This may prove to be a variety of *longicornis*, although the antennæ are shorter and more robust. It is closely allied to *Æ. albovarius*, from Cuba.

3. *Ædicephalus gracilicornis*.

Ædicephalus gracilicornis, Cress., Trans. Am. Ent. Soc., ii. p. 28, ♂ ♀.
Cordova.

4. *Ædicephalus vicinus*, n. sp.

♀.—Size and shape of *gracilicornis*, with similar black markings, the pale color being lemon-yellow instead of white; the vertex and occiput, except orbits, which are not interrupted as in *gracilicornis*, are black; the discal lines of mesothorax are broader and abbreviated; the scutellum more acute; the metathorax has an irregular transverse black band before the truncation, which is continued posteriorly on each side in a narrow line, middle of truncation with a short black stripe; all the femora have a black stripe above, that on the posterior pair dilated within near apex; posterior coxæ black at base, with a subapical black spot, extreme base of their tibiæ black; second segment of abdomen strongly longitudinally aciculate and transversely sulcate; antennæ more robust; otherwise as in *gracilicornis*. Length $3\frac{1}{2}$ lines.

Orizaba.

Subgenus ORTEZIA.

In this subgenus the form is broad, depressed and robust; the head small, narrowed beneath; scutellum broadly quadrate, shield-line, perfectly flat; metathorax broad and declivous, without tubercles or spines; legs short and robust; abdomen short, broad, ovate, depressed, *longitudinally rugose or aciculated, with the segments more or less constricted at base.*

1. *Ortezia egregia*.

Joppa? egregia, Cress., Trans. Am. Ent. Soc., ii. p. 30, ♀.

Orizaba. The abdomen is longitudinally rugose.

2. *Ortezia aciculata*.

Joppa? aciculata, Cress., Trans. Am. Ent. Soc., ii. p. 30, ♂ ♀.

Cordova. (Sumichrast, No. 83.) The abdomen is longitudinally aciculated.

Genus JOPPA, Fabr.

The species of this genus, so far as known from Mexico, are remarkably similar in style of color and ornamentation, all being bright lemon-yellow varied with black, having the wings yellow

banded with black, and in one specimen entirely fuliginous. All have the head broad, with swollen cheeks; the antennæ rather short, slender, that of the male more or less dilated near apex.

The following table will aid in distinguishing the species:—

Mesothorax vittate with black; wings with apex and submedian spot black.

1. **Sumichrastii.**

Mesothorax, scutellum, base of metathorax above and tip of abdomen, black; base and apex of wings black 2. **decorata.**

Mesothorax above, and tip of abdomen black; base and apex of wings black.

3. **incerta.**

Mesothorax fulvous; tip of abdomen and apex of wings black.

4. **elegantula.**

Mesothorax fulvous; head and tip of abdomen black; wings fuliginous.

5. **fumipennis.**

1. **Joppa Sumichrastii.**

Joppa Sumichrastii, Cress., Trans. Am. Ent. Soc., ii. p. 31, ♂ ♀.

Orizaba; Cordova. (Sumichrast, Nos. 14 and 20.) Common.

2. **Joppa decorata.**

Joppa decorata, Cress., Trans. Am. Ent. Soc., ii. p. 32, ♂.

Orizaba.

3. **Joppa incerta, n. sp.**

♀.—Differs from *decorata* ♂ by the scutellum and metathorax being entirely yellow; the posterior tibiæ are broadly black at apex, and most of the basal joint of their tarsi yellow. Length 5 lines.

Orizaba. This may be the ♀ of *decorata*.

4. **Joppa elegantula.**

Joppa elegantula, Cress., Trans. Am. Ent. Soc., ii. p. 32, ♂ ♀.

Orizaba; Cordova. (Sumichrast, Nos. 15.) In color and markings the ♀ resembles the ♂.

5. **Joppa fumipennis.**

Joppa fumipennis, Cress., Trans. Am. Ent. Soc., ii. p. 32, ♂ ♀.

Orizaba; Cordova. (Sumichrast, No. 13.)

Genus TROGUS, Grav.

Wings violaceous-black, very broad; body steel blue; head, anterior half of thorax, and anterior legs, yellowish-red 1. **latipennis.**

Wings hyaline, with two violaceous-black bands; body and legs black; posterior tarsi white 2. **blandita.**

Wings hyaline, apex only violaceous-black; body black, marked with yellowish-white. 3. **inclyta.**

1. *Trogus latipennis*, n. sp.

♀.—Blue-black, with a steel-blue reflection; head, pro- and mesothorax, pleura, and anterior legs, yellowish-red; vertex, antennæ and broad stripe over tegulæ, black; wings violaceous-black. Densely punctured, subpubescent; antennæ rather short, slender; scutellum convex; wings very broad, ample, areolet large, triangular; abdomen long, segments constricted at base, with a short basal longitudinal impressed line on each side, and an obtuse longitudinal ridge on disk of second and following segments. Length $9\frac{1}{2}$ lines.

Orizaba. (Sumichrast, No. 62.) A beautiful species.

2. *Trogus blandita*, n. sp.

♂.—Deep black, opaque, sides of thorax, scutellum, legs, and basal and apical segments of abdomen polished; anterior orbits, slightly dilated on the face and interrupted opposite insertion of antennæ, a narrow line on posterior orbits, a spot on middle of face indented above, transverse line on clypeus and spot on mandibles, yellowish-white; antennæ long, slender, serrate, gradually attenuated to apex which is very slender, brown-black, scape polished, black; thorax immaculate, closely punctured, scutellum obtusely conical, with scattered punctures; metathorax shaped much as in *inclyta*, with the elevated lines more sharply defined, and the surface more deeply punctured, the pleura has a slight opaline reflection; wings dusky hyaline, the anterior pair with two fuliginous, brilliant violet bands, one occupying the entire apical third and the other about half the breadth of the first, placed across the middle, apical margin brassy, middle of stigma sub-hyaline, areolet small, sub-triangular, petiolated, posterior wings dusky at apex; legs shining black, anterior coxæ in front, their femora and tibiæ in front, and the intermediate tibiæ before, soiled white; posterior tarsi longer than tibiæ, white; apical joint and claws black; posterior coxæ dilated above into an obtuse tubercle, their basal trochanters flat and dilated, as in *inclyta*; abdomen flattened, first segment shining, grooved medially, and with large scattered punctures, the four following segments opaque, longitudinally aciculated dorsally, densely and deeply punctured laterally, the incisures deep, the second segment above with a small lateral sub-apical lunate white mark; two apical segments smooth and shining, with a faint opaline iridescence. Length 7 lines.

♀.—Larger and more robust; antennæ not serrate, slightly thickened toward apex; face black, with a short white line on each side; otherwise like the ♂.

Orizaba. Resembles *inclyla* in form and sculpture, but very different in ornamentation. The anterior wings have a broad blackish medial band, and the apex is broadly blackish, while *inclyla* has only the apex blackish.

3. *Trogus inclyla*.

Joppa inclyla, Cress., Trans. Am. Ent. Soc., ii. p. 29, ♀.

Cordova.

Genus CRYPTUS, Fabr.

Wings hyaline.

Body black and white.

Mesothorax with two short white discal lines.

Large, robust; length 7 lines, ♀ 1. *aztecus*.

Small, slender; length 3 lines, ♂ 2. *tantillus*.

Mesothorax with central white spot.

Metathorax black above, inclosing four white spots; base of second abdominal segment black 3. *tenuiventris*.

Metathorax black at base, with a central black stripe; base of second abdominal segment white 4. *Celaya*.

Metathorax with an arcuate black band and a black spot at tip.

5. *arcuatus*.

Metathorax with only a narrow, median, black band.

6. *transversus*.

Mesothorax with a central white stripe; metathorax with a transverse angular black mark near base 7. *angulatus*.

Body pale ferruginous; head, antennæ, and mesothorax black and white; mesothorax with a central white dot 8. *citius*.

Wings fasciate with dusky; body pale honey-yellow... 9. *pulchripennis*.

Wings fuscous, subfasciate with yellowish; body ferruginous.

10. *xanthostigma*.

1. *Cryptus aztecus*, n. sp.

♀.—Black; face, orbits broad on the cheeks, palpi, broad complete annulus on antennæ above middle, anterior margin of prothorax, a triangular spot on each side posteriorly before the tegulæ, two abbreviated lines on disk of mesothorax, tegulæ, a short line beneath, a large elongate oblique mark on each side of pleura, with a small spot above it and with its lower posterior end indented with black, the scutellum and post-scutellum, a transverse spot behind posterior wing, four large spots on meta-

thorax posteriorly, four anterior coxæ and trochanters, posterior coxæ above and beneath, apical margins of all the abdominal segments, a band on first segment near base above, also its sides, and most of venter, all white; apical half of posterior trochanters, base of their tibiæ and tips of all the tarsi, dusky, posterior tarsi pale yellow, sides and extreme tips of posterior coxæ black; remainder of legs luteous; wings hyaline, slightly dusky at extreme tips, stigma with a pale spot at base. Antennæ more than half the length of body, third, fourth, and fifth joints long and subequal, the joints beyond the annulus slightly thickened; mesothorax without distinct dorsal impressed lines, very finely and closely punctured and interspersed with large scattering punctures; scutellum subconvex, the lateral regions crenulated; metathorax thinly clothed with white pubescence, obliquely truncate behind, rugose, the basal third smoother, bounded behind by a sharp transverse carina bent inwardly on the disk, also an oblique sharply defined carina on each side on the verge of the truncation, stigmata large, linear; areolet of anterior wing quadrate, smaller than usual; abdomen shining, fusiform, broad and robust beyond first segment, which is but slightly dilated at tip, with a longitudinal medial groove above and a depression on each side; ovipositor more than half the length of the body, black. Length $6-7\frac{1}{4}$ lines.

Orizaba; Cordova. (Sumichrast, No. 29.)

2. *Cryptus tantillus*, n. sp.

♂.—Black; face, mouth, orbits, cheeks, scape beneath, collar, tegula, line before, spot beneath, two discal spots on mesothorax, scutellums, space behind base of wings, pleura beneath and laterally except anterior and posterior margins, flanks of metathorax, two elongate marks on posterior face, four anterior coxæ and trochanters, posterior coxæ except black line above, most of posterior tarsi, and rather broad apical margins of abdominal segments, white; wings hyaline, beautifully iridescent; posterior trochanters above, apex of their tibiæ and base and apex of their tarsi, black. Form similar to that of *tenuiventris*. Length 3 lines.

Cordova. A small, very slender species.

3. *Cryptus tenuiventris*, n. sp.

♂.—Black; face, mouth, orbits, cheeks, scape beneath, broad

annulus on flagellum, collar, tegulæ, line before, dot beneath, elongate spot on disk of mesothorax, scutellum, space behind base of wings, flanks of metathorax, two spots at base and two at apex, pleura, base of four anterior legs, base of first abdominal segment, and broad apical margins of all the segments, white; wings hyaline, iridescent; legs, especially posterior pair, more or less yellow, posterior tarsi whitish, two stripes on posterior coxæ and all the femora above fuscous. Very slender, head broader than usual; metathorax rounded, with two transverse subarcuate carinæ and no tubercles or spines; areolet 5-angular; abdomen slender, gradually dilated at apex. Length $4\frac{1}{4}$ lines.

Orizaba. Also a very slender species.

4. *Cryptus Celaya*, n. sp.

♀.—Head black; face, mouth, cheeks and orbits white; antennæ black, with scape beneath and broad annulus on flagellum white; thorax white, tinged with yellowish; band on prothorax, mesothorax except central elongate spot, space around scutellums, base of metathorax, a broad central stripe and a slender one down each side, black; wings hyaline, nervures pale; legs dull luteous, pale at base, dot on intermediate coxæ and stripe on posterior pair black, four anterior tarsi dusky, posterior pair white, black at extreme tips; abdomen black with a broad white band on second and following segments above, base of second segment white, first segment white with a black spot before apex. Form rather small, slender; head not buccate, eyes large and prominent; antennæ long, slender, porrect; scutellum subconvex, metathorax sloping behind, the lateral tubercles small and obtuse; areolet subtriangular, small; legs slender; abdomen shining, first segment polished, apex subquadrate, slightly dilated; ovipositor half the length of abdomen. Length $4\frac{1}{4}$ lines.

Mirador. The metathorax has a broad black band at base, another down the middle and a slender one on each side.

5. *Cryptus arcuatus*, n. sp.

♀.—White; space beneath eyes, base and tips of mandibles, middle of vertex covering ocelli and extending to occiput, disk and lateral margins of prothorax, mesothorax except round discal spot, scutellar region, arcuate band on metathorax broad on disk, spot at apex, a slender oblique line beneath posterior wing, and a spot on outside of all the coxæ, larger and cuneiform on posterior

pair, beneath which at base are two elongate spots, black; antennæ long, slender, black, with a broad white annulus near apex, scape white beneath; wings hyaline, iridescent, nervures black; areolet rather small, 5-angular; legs honey-yellow, coxæ white, tips of four anterior tarsi blackish, posterior pair white, honey-yellow at extreme base and black at apex; abdomen black shining, base rather strongly arcuate, first segment white with a broad median black band, apical margins of remaining segments rather broadly white. Length $4\frac{1}{2}$ lines.

Orizaba. Easily recognized by the conspicuous strongly arcuated black band on metathorax.

6. *Cryptus transversus*, n. sp.

♀.—White; spot on vertex covering ocelli, most of occiput, apex of mandibles, antennæ except scape beneath and broad annulus on flagellum, posterior margin of prothorax, central spot above, mesothorax except central spot, lateral region of scutellum, narrow transverse band on middle of metathorax directed obliquely backward on the flanks, slender line on posterior coxæ furcate at tip, apex of tarsi, spot on middle of first abdominal segment, remaining segments except broad apical margins, and dot on each basal corner of second segment, black; wings hyaline, extreme apical margin dusky; legs except coxæ bright yellow, posterior tarsi except tips white. Robust, opaque; metathorax smooth, rounded, with a single transverse carina bordering the posterior black band; areolet small, 5-angular; abdomen broad, depressed; legs subrobust. Length 5 lines.

Mirador. This is closely allied to *arcuatus*, but distinguished at once by the band on metathorax being transverse.

7. *Cryptus angulatus*, n. sp.

♀.—Yellowish-white; tips of mandibles, spot on middle of vertex covering ocelli and connected with two oblique lines on occiput, disk of prothorax, sutures of mesothorax, scutellar region, transverse sutural line immediately beneath wings, sutural line at base of metathorax, a slender oblique one on each side near tubercles, and a short angular mark on disk connected medially with base, black; antennæ black, with a rather broad white annulus beyond middle, scape white beneath; mesothorax ferruginous or brown, with a stripe on middle division and line over tegulæ, yellowish; metathorax with a short transverse cariniform tubercle on each side

above; wings hyaline, iridescent, nervures brown, areolet 5-angular, rather small; legs honey-yellow, coxæ yellowish-white more or less tinged with honey-yellow, posterior pair with dusky spot on outer side, tips of posterior tibiæ and of all the tarsi black, posterior tarsi white, base and apex black; abdomen slender at base, shining black, apical margins of all the segments broadly white, lateral margins narrowly so, basal half of first segment honey-yellow. Length $4\frac{1}{2}$ lines.

Cordova. This pretty species is easily recognized by the angular black mark on disk of metathorax.

8. *Cryptus citus*, n. sp.

♀.—Head white, vertex and occiput except orbits, black; antennæ black, scape beneath and broad annulus on flagellum, white; collar and prothorax white, the latter with a central black stripe; mesothorax black, with a central white spot; scutellum white, the lateral region black; tegulæ and short line beneath white; metathorax honey-yellow, basal suture and median triangular stain, black; flanks of metathorax, and pleura whitish; wings hyaline, nervures and stigma blackish; legs honey-yellow, tips of all the tarsi, tips of posterior tibiæ and extreme base of their tarsi, blackish; remainder of posterior tarsi white; abdomen entirely honey-yellow; ovipositor black. Form slender; antennæ rather longer than body, filiform; metathorax rugulose, obliquely truncate behind, with a short, transverse, sharply defined carina on each side and a subarcuate indistinct carina between middle and base; areolet 5-angular, not large; legs slender; abdomen slender, smooth, somewhat shining; ovipositor longer than first abdominal segment. Length $4\frac{1}{4}$ lines.

Orizaba. Allied to *atricollaris*, Walsh.

9. *Cryptus pulchripennis*, n. sp.

♀.—Uniformly ferruginous, slender; narrow anterior and posterior orbits yellowish-white; antennæ long, slender, black, with a broad pale yellowish annulus about the middle, base ferruginous; disk of prothorax yellowish-white; anterior and posterior suture of pleura, space around scutellum, and spot on each side of metathorax at extreme tip, black; metathorax rounded, with two fine transverse subarcuate carinæ, between which the space is obliquely finely aciculate, apex longitudinally striated; wings pale yellowish-hyaline, beautifully iridescent, a band beneath base

of stigma, another beneath apex, and the apical margin dusky, apical margin of posterior pair dusky, stigma pale yellowish, blackish at tip; legs slender, uniformly ferruginous, posterior tarsi yellowish, dusky at tips; abdomen more or less tinged with fuscous. Length $4\frac{1}{4}$ lines.

Orizaba. Closely allied to *cestus*, Say, but quite distinct.

10. *Cryptus xanthostigma*.

Cryptus xanthostigma, Brullé, Hym. p. 190.

Mirador. One ♂ specimen.

Genus JOPPIDIUM, Walsh.

The species of this genus are slender in form, especially that of the ♂, the legs slender, the posterior pair unusually long; the antennæ of ♀ often thickened before the apex, somewhat as in *Joppa*; the wings ample and in the Mexican species, so far as known, entirely blackish; the abdomen more slender than in *Cryptus*, the first segment being long and linear.

The three Mexican species are closely allied and may be separated by the characters given in the following table:—

Body black; all the tibiæ and tarsi yellow.....	1. <i>dubiosum</i> .
Body ferruginous; metathorax, hind coxæ, first abdominal segment ♀, and whole of abdomen ♂, black.....	2. <i>ardens</i> .
Body entirely ferruginous.....	3. <i>donabilis</i> .

1. *Joppidium dubiosum*, n. sp.

♀.—Shining-black; head entirely ferruginous, as well as base of antennæ, the middle of which is orange-yellow, and the apical third black; anterior legs entirely, most of intermediate femora, four posterior tibiæ and tarsi, bright yellow; wings black, with a strong purple reflection. Form slender; antennæ longer than head and thorax, slightly thickened before apex, the third, fourth, and fifth joints long and subequal; mesothorax with the dorsal lines well impressed, with a shallow longitudinal impression down the middle and also on each side over tegulæ; scutellum triangular, convex at tip and deeply excavated at base; metathorax transversely striated except at base which is smooth, and the sides which are punctured; wings ample, areolet rather large, 5-angular; legs long and slender, especially posterior pair; abdomen slender, fusiform beyond first segment, which is long and

linear, being very slightly broader at tip, stigmatic tubercles prominent and placed a little behind the middle; ovipositor more than half the length of abdomen. Length $6\frac{1}{2}$ lines.

♂.—Antennæ long, filiform, attenuated to tips, black, with a yellowish annulus beyond middle, scape dull honey-yellow; vertex and occiput black; abdomen very slender, subcompressed towards apex; otherwise as in ♀. Length $6\frac{1}{2}$ lines.

Cordova. (Sumichrast, No. 58.) The ♀ is closely allied to that of *rubriceps*, Walsh, but distinct by the very different sculpture of the metathorax. The males of the two species are very distinct.

2. *Joppidium ardens*, n. sp.

♀.—Ferruginous; metathorax, four posterior coxæ, posterior trochanters, base of their femora, basal segment of abdomen, base of second segment, and sheaths of ovipositor, black; sometimes the metathorax is varied with ferruginous; antennæ colored as in *dubiosum* except that the yellow is confined to an annulus about the middle; intermediate tibiæ, and posterior tarsi except tips, yellow; tips of all the tarsi dusky. Same form as *dubiosum*, compared with which the mesothorax has the dorsal lines more deeply impressed, and the intervening shallow depressions are wanting, while the transverse striæ on metathorax are confused on the disk and the sides are finely striated, areolet of anterior wing larger, the abdomen rather more slender, the first segment with a shallow depression above between stigmatic tubercles; ovipositor longer. Length $6\frac{1}{2}$ —7 lines.

♂.—Antennæ black, with a narrow yellowish annulus beyond middle, scape ferruginous; metathorax smooth and shining, the apex above having a few irregular transverse striæ; posterior legs black, basal joint of their tarsi white, apex fuscous or black; abdomen sometimes entirely black, generally the second and following segments have a dull ferruginous median or basal band. Length $6\frac{1}{2}$ —7 lines.

Cordova; Isthmus of Tehautepec. (Sumichrast, No. 34 ♀, 56 ♂.)

3. *Joppidium donabilis*, n. sp.

♂ ♀.—Uniformly ferruginous; face of ♂ pale; antennæ black, with a broad, very distinct white annulus; metathorax transversely striated, with two transverse arcuate carinæ, flanks of ♂

smooth; wings colored as is preceding species; basal joint of posterior tarsi pale yellowish; abdominal segments slightly varied with dusky, sometimes the second and third segments are distinctly marked at base with black. Length $6\frac{1}{2}$ -7 lines.

Cordova. (Sumichrast, No. 53.) Distinguished from the two preceding species by the uniform ferruginous color, and by the black antenna having a distinct broad white annulus.

Genus PHYGADEUON, Grav.

1. *Phygadeuon satageus*, n. sp.

♀.—Clothed with short pale pubescence; head black, mouth piecous, palpi white; antennæ black, a broad complete annulus about the middle, and the two basal joints white; prothorax, mesothorax, scutellar region, and anterior margin of pleura, black; anterior and posterior margin of prothorax, tegulæ, a line beneath, most of the pleura laterally, an oblique line on each side before the scutellum, and the scutellum, white; metathorax, and the coxæ and trochanters, pale-testaceous, wings hyaline, nervures; and stigma pale testaceous; legs and abdomen pale honey-yellow, dilated portion of abdomen darker; tips of tarsi dusky. Antennæ and legs rather robust; head transversely quadrate; metathorax with sharply defined elevated lines forming on the dorsal surface an elongate central area, and two subquadrate ones on each side; posterior portion truncate, with a short tubercle on each side on the verge of the truncation; areolet 5-angular; abdomen fusiform when viewed from above, slender at base, smooth and shining, ovipositor about as long as the first segment of the abdomen. Length $3\frac{1}{2}$ lines.

Cordova. (Sumichrast, No. 68.)

2. *Phygadeuon zapotecus*, n. sp.

♂.—Black; clothed with a short, golden pubescence, very dense on face and metathorax; scape and broad annulus on flagellum pale yellow, first joint of the latter honey-yellow; palpi, tegulæ, and four anterior coxæ and trochanters, whitish; legs and abdomen, except first segment, honey-yellow, tip of the latter with a yellowish stain; wings hyaline, tinged with yellowish, subiridescent, nervures and stigma brownish, the former pale yellow at base. Head and thorax large, robust, abdomen small; vertex and face strongly punctured; antennæ as long as body, filiform,

basal joints of flagellum long, subequal; thorax gibbous, feebly punctured, shining; scutellum flat, metathorax opaque, with well-defined elevated lines, apex truncate; wings ample, areolet 5-angular; legs slender; abdomen elongate, flattened, petiolate, smooth and polished. Length $3\frac{1}{2}$ lines.

Orizaba.

Genus MESOSTENUS, Grav.

Subgenus POLYCYRTUS, Spinola.

This subgenus is distinguished by having a single spine or tubercle on the front, behind the antennæ. The form is long and very slender in all the species; the three regions of the mesothorax prominent; the first abdominal segment long, slender, and gradually but not broadly dilated at apex; and the areolet of anterior wing closed.

The species may be tabulated as follows:—

- Abdomen black, banded with white or yellowish :
- Metathorax with cruciform black mark above :
 - Second abdominal segment with a white sublunate mark on each side, and third segment with a white lateral spot. 1. **melanoleucus**.
 - Sides of second and third segments broadly margined with white. 2. **ferox**.
- Metathorax with a central black stripe, often dilated medially and crossed by a slender line near base :
 - Second abdominal segment with a subtriangular white mark on basal middle, and an elongate white mark on lateral margin. 3. **major**.
 - Second abdominal segment with a sublunate mark on each side and lateral margin, white. 4. **acerbus**.
 - Second abdominal segment with a large, acute, cruciform mark on basal middle and a spot on lateral margin, white. 5. **macer**.
 - Second abdominal segment with an irregular, transverse, central mark near base 6. **mancus**.
 - Second abdominal segment with basal half of lateral margin dilated; metathorax broadly black at base. 7. **paululus**.
- Metathorax with two black spots at base, and a central black stripe. 8. **junceus**.
- Metathorax with three black stripes, the lateral ones confluent at base, the central one short; mesothorax with a central white spot. 9. **reliquus**.
- Metathorax entirely honey-yellow, sometimes stained with fuscus at base above 10. **copiosus**.

- Abdomen luteous, most of first and base of second and third segments black; metathorax and pleura honey-yellow, the former with a blackish stain at base..... 11. **accuratus**.
- Abdomen black on basal half; head, prothorax, and mesothorax black; only the clypeus and mandibles white; pleura and sides of metathorax honey-yellow, the latter fuscous above; posterior femora black, their tibiae and tarsi bright yellow 12. **furvus**.
- Abdomen honey-yellow:
- Metathorax with a central black stripe; abdomen entirely pale honey-yellow 13. **univittatus**.
- Metathorax entirely pale honey-yellow; abdominal segments paler at apex 14. **pallidus**.
- Abdomen and thorax vermilion-red; basal margin of third and following segments blackish; head, except mouth, entirely black. 15. **atriceps**.

1. **Polycyrtus melanoleucus**.

Mesostenus (Polycyrtus) melanoleucus, Brullé. Hym., p. 204, ♂.

♀.—Black; face, mouth, orbits broad on cheeks, broad annulus on antennae, collar, prominent upper margin of prothorax, two short discal lines on mesothorax, a line on posterior margin before scutellum, tegulae, spot on apex of scutellum and postscutellum, from each side of which diverge a narrow line to base of wings, pleura, except two or three black lines or spots, white; metathorax white, a large erueiform mark on the disk, the transverse bar very broad, a spot covering the spiracles and continued posteriorly in a narrow line, a spot on each side above posterior coxae, and the basal suture, black; legs yellow, coxae whitish, the two posterior pair with a black stripe on outside, all the femora with a black stripe above, the four anterior tibiae above, their tarsi entirely, and base of posterior tibiae fuscous; wings hyaline, nervures black; abdomen above black, sides and apex of first segment, apex and a sublunate spot on each side of second, broad apical and lateral margins of following segments, a transverse line or spot on each extreme side of third segment, and the venter, white. Smooth and shining; frontal spine long and obtuse; antennae as long as the body; metathoracic spines long and subacute; areolet of anterior wing small, transversely quadrate, closed; abdomen rather robust beyond first segment, which is long and rather squarely dilated at apex. Length 6-6½ lines.

♂.—Much more slender than ♀, with longer antennae and legs; the transverse bar of the cross on metathorax is broader and subtriangular; the legs have scarcely any tinge of yellowish; the

white spot on lateral middle of second abdominal segment is ovate, and that on third very minute; the wings are tinged with dusky. Length $5\frac{3}{4}$ lines.

Orizaba; Cordova.

2. *Polycyrtus ferox*, n. sp.

♀.—Black; face, orbits broadly interrupted behind summit of eyes, broad annulus near apex of antennæ, collar, prominent upper margin of prothorax, two short discal lines on mesothorax, and oblique marginal line on each side posteriorly, and the pleura, white; scutellums and metathorax marked as in *melanoleucus*, except that the transverse of the cross is confluent with the stigmatal spot and lateral stripe; wings hyaline or subhyaline, nervures black; legs as in preceding species, rather darker colored and with the tibiæ entirely yellow; lateral and apical margins of abdominal segments, white, varying in breadth on different segments. Elongate, slender, smooth and shining, more slender than *melanoleucus*; frontal spine robust, obtuse; metathoracic spines obtuse; areolet elongate quadrate, narrow, closed; legs and abdomen long, slender; second segment smoothly depressed before base, narrower than in preceding species. Length 7 lines.

Orizaba.

3. *Polycyrtus major*, n. sp.

♀.—Black; head, antennæ and thorax as in *melanoleucus*; metathorax pale luteous, with a black central stripe dilated medially, crossed near base by a slender line, confluent with spot covering spiracles and then with lateral stripe, basal suture narrowly black; wings hyaline, faintly tinged with fuscous, nervures blackish; legs yellow, posterior coxæ with black stripe, femora brownish-yellow above and within, with a blackish stripe above, four anterior tarsi and apical joint of posterior pair black; first three abdominal segments black above, apical and lateral margins of first, second, and third segments, very broad on the latter, a triangular spot on basal middle of second segment, the lateral margin of which is triangularly dilated near base, white; lateral margin of third segment suddenly abbreviated near base; remaining segments white, with narrow basal margins black. Smooth, shining; form much as that of *ferox*, with abdomen rather more robust, and second segment shorter, broader and

scarcely depressed near base; frontal spine subacute, as are also the metathoracic spines. Length $8\frac{1}{2}$ lines.

Orizaba.

4. *Polycyrtus acerbus*, n. sp.

♀.—Black; head, antennæ, thorax, and legs marked as in *major*; posterior tarsi white, with base yellow and claws black; wings hyaline, nervures brown; first segment of abdomen white, with a narrow central black line above, interrupted near base and broadly dilated near apex; second and following segments black, with broad apical and lateral white margins; second segment with sublunate white spot on each side and the third with small white spot on lateral middle. Form slender; head, thorax and abdomen smooth and shining, metathorax rugose, opaque; frontal spine short and obtuse; metathoracic spines flat; abdomen robust beyond first segment; areolet small, quadrate, closed. Length 6 lines.

Orizaba. Closely resembles *melanoleucus*, but easily distinguished by the markings and sculpture of the metathorax.

5. *Polycyrtus macer*, n. sp.

♂ ♀.—Head, antennæ, prothorax, and mesothorax black; face, mouth, orbits, broad annulus on antennæ, collar and spot on each side before tegulæ, two oblique lines before scutellum, tegulæ, apex of scutellum and postscutellum, with slender lines leading to base of wings, and spot beneath tegulæ, white; pleura and metathorax tinged with yellowish, anterior margin of pleura, extending beneath, basal suture of metathorax, a broad central stripe and a slender one on each side, the former crossed by a short slender line; black; wings hyaline, faintly dusky on apical margin, nervures black; legs dull luteous, trochanters and femora more or less tinged with fuscous, tibiæ yellow, four anterior tarsi blackish, posterior pair white, with black claws; abdomen black above, first segment white, with a subapical black spot, remaining segments with rather broad apical, and uneven lateral white margins, the second with a long acute mark at base, sometimes cruciform. Long and slender, rather smooth and shining, pubescent; frontal horn very short and acute; metathoracic spines short and obtuse, antennæ as long as body; areolet minute, closed; abdomen long, slender, subcylindrical in ♂. Length 6 lines.

Cordova. (Sumichrast, No. 109.)

6. *Polycyrtus mancus*, n. sp.

♀.—Very much like *macer*, differing as follows: Size smaller; the mesothorax has two short white discal lines; the scutellum is entirely white; the transverse bar of the cruciform black mark on metathorax is abbreviated laterally and not confluent with stigmatal spot; the second abdominal segment has a transverse white mark near the base; otherwise as in *macer*. Length $4\frac{3}{4}$ lines.

♂.—In this sex the central black stripe on metathorax is slender, being dilated between the spines, crossed by a slender line near base and confluent on each side with stigmatal spot.

Orizaba.

7. *Polycyrtus paululus*, n. sp.

♀.—Head, antennæ, and mesothorax black; face, mouth, orbits, broad annulus on antennæ, collar, line before tegulæ, two short discal lines on mesothorax, two oblique lines before scutellum, tegulæ, scutellum except basal excavation, and spot on postscutellum, white; pleura and metathorax whitish, basal suture of the latter and three narrow longitudinal stripes, black; legs pale honey-yellow; wings hyaline, iridescent; abdomen above black, apical margin of all the segments white. Small, slender, smooth and shining; frontal spine short and acute; metathorax rugulose down the middle, the spines long and acute; abdomen very slender at base, gradually dilated towards apex; areolet minute, closed. Length 4 lines.

Cordova. (Sumichrast, No. 134.)

8. *Polycyrtus juncus*, n. sp.

♂.—Black; face, mouth, orbits, interrupted behind, apex of frontal spine, broad annulus on antennæ, collar, spot on each side before mesothorax, tegulæ, scutellum except base and central spot, confluent with an oblique line on each side extending nearly to tegulæ, and apex of postscutellum, white; pleura and metathorax whitish, the latter with two nearly confluent spots at base to transverse carina and then a central black line dilated at each end; wings hyaline, faintly fuscous at apex, nervures black; legs yellowish, four posterior coxæ with two faint fuscous stripes, the trochanters and femora above, base of posterior tibiæ and the four anterior tarsi, blackish; abdomen black above, lateral and apical margins of all the segments white, becoming broader on

apical segments. Form slender, smooth and shining; metathorax and pleura unusually pubescent; frontal spine long and acute; metathoracic spines rather obtuse; antennæ very long, slender; areolet minute, closed; abdomen very slender, subcylindrical. Length $5\frac{1}{2}$ lines.

Orizaba.

9. *Polycyrtus reliquus*, n. sp.

♂.—Black; face, clypeus, labrum, spot on mandibles, orbits broad on cheeks, palpi, broad annulus near apex of antennæ, collar above, line on each side before tegulæ, spot on disk of mesothorax, two spots before scutellum, tegulæ, transverse spot beneath, spot on scutellum, another on postscutellum, pleura beneath and a large oblique mark on each side, yellowish-white; metathorax yellowish-white, with three black stripes, the lateral ones confluent at base, the central one abbreviated anteriorly; wings hyaline, iridescent, apex faintly dusky, nervures black; legs yellow, coxæ yellowish-white, the two posterior pair with a black stripe; four anterior femora above, the posterior pair on the outside and within, base of their tibiæ and tips of all the tarsi, black; abdomen black, first segment except large spot before apex, apical margin of all the remaining segments, and large transverse spot at base of second segment, white. Shining; mesothorax pitted; metathorax transversely rugose, without tubercles or spines; abdomen long and slender, smooth and shining; antennæ as long as body; frontal horn long and acute; areolet very minute, closed. Length $6\frac{1}{2}$ lines.

Orizaba.

10. *Polycyrtus copiosus*, n. sp.

♀.—Head; antennæ, prothorax and mesothorax black; middle of face, orbits interrupted behind, clypeus, spot on mandibles, apex of frontal horn, broad annulus on antennæ, collar, line on each side before tegulæ, two oblique lines before scutellum, tegulæ, apex of scutellum and slender lines leading to base of wings, white; pleura, metathorax and legs luteous; metathorax often more or less dusky from the base to spines; four anterior tarsi blackish, posterior trochanters and femora more or less dusky above, their tibiæ shading into yellow, and their tarsi paler; wings hyaline, nervures fuscous; first abdominal segment dull luteous, darker towards apex which is white; basal half of second and third seg-

ments black, remainder white, with base of third segment narrowly black; second segment with a white dot on each side near base. Smooth and shining; metathoracic spines very long, slightly recurved at tip which is obtuse; areolet quadrate, closed; abdomen robust beyond first segment; legs and antennæ very long and slender. Length $5\frac{1}{2}$ lines.

♂.—More slender than ♀, with face entirely white, and all the abdominal segments black, banded at apex with white.

Orizaba; Cordova. (Sumichrast, No. 105.) Common.

11. *Polycyrtus accuratus*, n. sp.

♀.—Head and mesothorax black; face orbits, mouth, upper margin of prothorax, two short lines on each lateral lobe of mesothorax, an oblique line on each side leading to scutellum, apex of scutellum and tegulæ, white; antennæ black, with broad white annulus; middle and base of scutellum black; base of metathorax with two nearly contiguous black spots reaching to transverse carina; remainder of thorax luteous; legs luteous, except four anterior tarsi which are blackish; wings hyaline, nervures fuscous; abdomen luteous, paler than rest of body, first segment except apex, base of second and narrow basal margin of third segment, black. Form slender, smooth and shining; frontal horn obtuse; metathoracic spines long and blunt; areolet of anterior wing transversely quadrate, closed; abdomen slender, rather thickly clothed with appressed black pubescence, and at apex beneath with long black hair. Length $5\frac{1}{2}$ lines.

Mirador.

12. *Polycyrtus furvus*, n. sp.

♂.—Head, antennæ, pro- and mesothorax, most of scutellum and posterior femora, black; clypeus, labrum, spot on mandibles, palpi, broad annulus on antennæ, and two slender oblique lines before scutellum, white; pleura metathorax, and four anterior legs, dull luteous; metathorax above and posterior coxæ dark fuscous or blackish; four anterior tibiæ yellow, their tarsi dusky, posterior tibiæ and tarsi pale yellow; wings hyaline, faintly dusky at tips, nervures black; first, second, and base of third segments of abdomen black, the remainder pale brown; narrow apical margin of first segment, broad apical margin, and a short narrow stripe on basal lateral margin of second segment, pale. Form slender, smooth and shining; antennæ longer than body; frontal horn long,

stout, subacute; metathoracic spines long, subacute and slightly recurved; abdomen very slender at base, the first segment with a prominent tubercle before apex; areolet quadrate, closed. Length $5\frac{1}{2}$ lines.

Orizaba.

13. *Polycyrtus univittatus*, n. sp.

♂ ♀.—Head, antennæ, pro- and mesothorax, anterior margin of pleura, spot beneath wings, scutellar region and dilated stripe down middle of metathorax, black; face, mouth, orbits, broad annulus on antennæ, collar, line on each side before tegulæ, tegulæ, spot above, another beneath, scutellum, and two oblique lines in front, white; wings pale fusco-hyaline, nervures brown; remainder of metathorax, legs, and abdomen pale honey-yellow. Slender, smooth and shining; frontal spine very short and acute; middle of metathorax rugulose, and in place of the usual spines there is a prominent transverse carina; legs and abdomen slender, especially of ♂; areolet minute, closed. Length $4-4\frac{1}{2}$ lines.

Orizaba; Cordova. (Sumichrast, No. 97.) Common.

14. *Polycyrtus pallidus*, n. sp.

♂.—Pale honey-yellow; head, antennæ, pro- and mesothorax, black; face, mouth, orbits, frontal spine, very broad annulus on antennæ occupying nearly the apical half, collar, tegulæ, line on each side before, spots on scutellum and two oblique lines in front, white; wings hyaline, nervures pale; metathoracic tubercles, tarsi, and apex of abdominal segments, whitish. Slender, smooth and shining; frontal spine robust, obtuse; metathorax with two blunt tubercles; areolet quadrate, closed; abdomen and legs long and slender. Length $4\frac{3}{4}$ lines.

Cordova.

15. *Polycyrtus atriceps*, n. sp.

♀.—Bright red, legs paler; head and antennæ black; clypens and broad annulus on antennæ white; posterior tibiæ yellow, their tarsi whitish; wings hyaline; basal margin of third and following segments blackish. Slender, smooth and shining; frontal and metathoracic spines robust and obtuse; areolet closed. Length 4 lines.

Orizaba.

Subgenus *POLYÆNUS*.

This subgenus is formed for the reception of two species differing from *Polycyrtus* in having *two* short nearly contiguous spines on the front. The form is also shorter and more robust, the regions of the mesothorax not at all prominent, and the first abdominal segment rather short and broadly though gradually dilated at apex. The areolet of anterior wing is elongate, narrow, and closed.

1. *Polyænus ectypus*, n. sp.

♀.—Black; face, mouth, orbits, collar, tegulæ, spot before, another beneath, apex of scutellum, two oblique lines in front, post-scutellum, pleura except anterior margin, metathorax except a broad central stripe crossed near base by a slender line to spiracles, legs, base of first abdominal segment, broad apical and lateral margins of all the segments, and basal corners of second segment, yellowish-white; broad annulus on antennæ pure white; wings hyaline; trochanters, femora above and tarsal tips dusky. Slender, shining; frontal spines short, acute; upper lateral angles of prothorax prominent, tuberculiform; metathorax longitudinally rugose down the middle, the spines prominent, obtuse; abdomen polished; areolet small, narrow, closed. Length 5 lines.

Orizaba.

2. *Polyænus ablatu*s, n. sp.

♀.—Black; face, mouth, orbits broadly interrupted behind, tegulæ, spot in front, dot beneath, apex of scutellum, two oblique lines in front, postscutellum, space behind base of wings, flanks of metathorax, two elongate marks on its posterior face covering spines, broad oblique mark on each side of pleura, most of legs, base of first abdominal segment, broad apical and narrow lateral margins of all the segments, and basal corners of second segment, yellowish white; broad annulus near apex of antennæ pure white; wings hyaline; all the coxæ within, four anterior trochanters beneath, the posterior pair except base above, four anterior femora beneath, tips of their tarsi, and posterior femora, except two broad yellow stripes—one outwardly and the other above, black; posterior tibiæ bright yellow. Head and thorax robust, densely and confluent punctured, pubescent; frontal spines short, acute; upper lateral margins of prothorax not so prominent as in *ectypus*;

metathoracic spines long, prominent, obtuse; areolet narrow, closed; abdomen smooth and polished. Length $4\frac{1}{4}$ lines.

Orizaba.

Subgenus MESOSTENUS.

In this subgenus the form is much more robust than in *Polycyrtus*. The head has no frontal spine or tubercle; the lobes of mesothorax generally not prominent, often scarcely indicated; the metathorax varies in form, with the spines sometimes long and acute, and sometimes entirely wanting; the areolet of anterior wing, always small, also varies much in shape, and although generally closed, is sometimes open.

The species are numerous and may be separated by the characters given in the following table.

Abdomen black, banded with white or yellow :

Mesothorax with white discal spot :

Metathorax with lateral tubercle or spine :

Metathorax with three black stripes, connected by a broad black band at base; posterior coxæ pale fulvous, their femora black within; scutellum white at apex..... 1. **aztecus**.

Metathorax as in *aztecus*; posterior coxæ with broad black lateral stripe, their femora black above and within; scutellum white at apex..... 2. **propinquus**.

Metathorax with three black stripes, connected at base by a narrow black band; posterior coxæ with a narrow black stripe, their femora black above and beneath; second abdominal segment with a transverse whitish mark on basal middle; scutellum white at tip.

3. **compactus**.

Metathorax black, with two elongate white spots covering spines, and a large white spot on each flank; posterior coxæ with a subcordate black mark above, their femora trivittate with black; scutellum white..... 4. **discus**.

Metathorax as in *discus*; posterior coxæ with two short black stripes above; their femora bivittate with black; scutellum white.

5. **facilis**.

Metathorax black, tubercles and spot on each flank, white; posterior coxæ marked with black, their femora black beneath and at tips; scutellum white..... 6. **acceptus**.

Metathorax black at base, with three slender black stripes; posterior coxæ with lateral black stripe, their femora entirely pale fulvous; second abdominal segment broadly white at base and apex; scutellum white..... 7. **modicus**.

Metathorax fulvous, black at base above; discal spot of mesothorax often furcate anteriorly; legs, except tips of tarsi, fulvous; scutellum white..... 8. **communis**.

Metathorax without lateral tubercle or spine :

Metathorax black above, with an elongate, subtrefoil, white mark extending to apex 9. **chichimecus**.

Metathorax black above, with two white spots near base, and an elongate, median, white spot dilated at apex ; second abdominal segment with a white dot on basal middle..... 10. **admirandus**.

Metathorax black above, with an arcuate white line at apex ; posterior femora bivittate with black ; scutellum black at tip.

11. **arcuatus**.

Metathorax black above, with a large quadrate white mark on posterior face, inclosing a small quadrate black spot, there is also three small white marks on basal margin posterior coxæ with a black stripe or elongate spot above, their femora with a black stripe above 12. **admotus**.

Mesothorax with two short white discal lines :

Metathorax with three black stripes connected by a broad black band at base ; legs luteous, all the femora black above. 13. **mexicanus**.

Metathorax as in *mexicanus* ; posterior legs black, their coxæ whitish, with a large black spot above, their femora reddish on basal half, and most of their tarsi white ; *antennæ entirely black except scape beneath* 14. **lassatus**.

Metathorax as in *mexicanus* ; legs fulvous, tarsi whitish tipped with black 15. **moratus**.

Metathorax as in *mexicanus*, with basal band narrow and inclosing a white spot on each side ; legs as in *moratus* ; second abdominal segment with an elongate white spot on basal middle.

16. **absolutus**.

Metathorax with a broad central stripe, sometimes dilated anteriorly, not reaching basal suture ; legs fulvous, posterior tarsi white, black at base and apex 17. **accolens**.

Metathorax with a subcruciform black mark, the posterior stem broad, the cross-piece triangular, the anterior stem narrow and reaching the basal suture ; legs fulvous, posterior tarsi white, black only at tips.

18. **novatus**.

Mesothorax with a white line on each lateral lobe, and a white spot on each side of middle lobe, which is prominent and grooved medially.

19. **stupidus**.

Mesothorax with a central white stripe..... 20. **abactus**.

Mesothorax black, immaeculate.

Metathorax broadly black at base, with three broad black stripes to apex ; posterior femora rufous, black at base and apex, their tibiæ fulvous, their tarsi yellow..... 21. **admonitus**.

Abdomen mostly reddish :

Metathorax black and white :

Abdomen yellowish-red, sometimes black at base.....22. **incertus**

Abdomen yellowish-red, with whitish bands..... 23. **animatus**.

Metathorax and abdomen entirely yellowish red :

Head, pro- and mesothorax, and scutellum black and white.

24. *pertenuis*.

Head black, thorax reddish..... 25. *collaris*.

Head, thorax, and abdomen entirely black ; four anterior legs and hind tarsi pale 26. *arctus*.

1. *Mesostenus aztecus*, n. sp.

♀.—Black ; face, clypeus, spot on mandibles, anterior orbits, cheeks, broad annulus on antennæ, collar, tegulæ, line in front, spot beneath, spot on disk of mesothorax, apex of scutellum, two oblique lines in front, postscutellum, mark behind base of wings, two elongate marks on posterior face of metathorax from spines, covering them, to apex, a large mark on flanks, a large subcuneiform mark on each side of pleura and two subquadrate spots beneath, whitish ; wings hyaline, apex dusky, nervures black ; legs luteous-yellow, posterior coxæ honey-yellow, four anterior coxæ and base of posterior pair whitish, all the femora within, posterior knees and extreme tips of tarsi, black ; abdomen black above, base and apex of first segment, apical margins of the following segments, and a spot on each basal corner of second segment, white or yellowish-white. Large, elongate, robust, thorax opaque, abdomen shining ; upper lateral angles of prothorax subtuberculate ; metathorax transversely striated behind, the spines prominent, obtuse and slightly recurved ; areolet subquadrate, narrow, closed. Length 8 lines.

Cordova. (Sumichrast, Nos. 52 and 55.)

2. *Mesostenus propinquus*, n. sp.

♀.—Marked like *aztecus*, except that the two apical white marks on metathorax are continued for a short distance above the spines, which are not recurved at tip ; the pleura is entirely black beneath, the lateral spot with a slender hook beneath, projecting forward ; the posterior coxæ are white, with a broad black mark on outside and a smaller one within ; the abdomen is more robust, the first segment shorter and more squarely dilated at apex ; the upper lateral angles of prothorax are not prominent. Length 6-7½ lines.

♂.—Antennæ rather longer than body ; posterior legs very long, with tips of their tibiæ black ; abdomen short, narrow, the first segment black, with a narrow central mark and apical margin pale ; otherwise like ♀. Length 7 lines.

Cordova. (Sumichrast, No. 78.)

3. *Mesostenus compactus*, n. sp.

♀.—Black; face, clypeus, spot on mandibles, orbits irregular in front and dilated on cheeks, annulus on antennæ. collar, tegulæ, spot in front, another beneath, another on disk of mesothorax, apex of scutellum, two spots in front, postscutellum, two slender lines to base of wings, space behind wings, pleura beneath, spot on each side, two broad stripes on posterior face of metathorax covering spines, and a large mark on flanks, white or whitish; wings hyaline, nervures black; legs luteous yellow, coxæ whitish, spot on posterior coxæ, base and apex of trochanters, four anterior femora above, stripe on upper and lower edge of posterior pair, confluent at base and apex within, black; abdomen black above, base of first segment, broad apical margin of all the segments and three spots at base of second—the central one transverse, the lateral ones sublunate—yellowish-white, the two apical segments have a central black band. Robust, compact, opaque; mesothorax densely and coarsely pitted; metathorax rugose, reticulated; abdomen smooth and shining, robust, first segment squarely dilated at tip; upper lateral angles of prothorax produced into a prominent, robust, subacute spine; metathoracic spines prominent and obtuse; areolet small, quadrate, closed. Length 5 lines.

Orizaba.

4. *Mesostenus discus*, n. sp.

♀.—Differs from *propinquus* as follows: Orbits interrupted behind eyes; scutellum very flat, entirely yellowish-white; without spots in front; the posterior coxæ have a cordate black spot above, confluent with apical suture, their femora have two black stripes above and one beneath, all confluent at base and apex, tips of all their tarsi black; the meso- and metathorax are densely and coarsely rugose, the former finely striated on disk; the areolet is small, quadrate and open; the upper lateral angles of prothorax are prominent. Length 6–6½ lines.

Orizaba.

5. *Mesostenus facilis*, n. sp.

♀.—Very much like *discus*, except that the posterior coxæ have two short black stripes above, and their femora a black stripe on each side above; the tibiæ and tarsi are yellow, the latter tipped with black, the posterior pair lemon-yellow; the abdomen is more

slender; the mesothorax is very irregularly sculptured, the posterior middle longitudinally striated; metathorax reticulated. Length $5\frac{3}{4}$ lines.

Orizaba.

6. *Mesostenus acceptus*, n. sp.

♀.—Black; middle of face, clypeus, spot on mandibles, palpi, orbits, annulus on antennæ, collar, tegulæ, spot in front, short line beneath, round spot on disk of mesothorax, scutellum, spot on postscutellum, two spots on metathorax covering tubercles, spot on flanks, mark behind base of wings, and large mark on each side of pleura, white; wings hyaline, dusky at apex, nervures black; legs yellow, coxæ whitish, anterior and posterior pairs black at base, the latter also at tip, base of trochanters, all the femora beneath, posterior pair at tips and all the tarsal tips, black; abdomen black above, with all the segments broadly banded at apex with whitish. Robust, opaque; mesothorax rugulose, posterior middle longitudinally striated; metathorax densely rugose, tubercles short, robust and obtuse; legs robust; areolet minute, open; abdomen broad, robust. Length 4–5 lines.

Orizaba.

7. *Mesostenus modicus*, n. sp.

♀.—Black; face, mouth, broad orbits, broad annulus on antennæ, *scape beneath*, collar, tegulæ, line in front, spot beneath, spot on disk of mesothorax, scutellum, two oblique lines in front, postscutellum, mark behind base of wings, most of pleura, flanks of metathorax and two broad stripes on posterior face, white; wings faintly dusky, iridescent, nervures fuscous; legs yellow, coxæ whitish, spot on intermediate pair, line on posterior pair and tips of tarsi, black; abdomen whitish, spot near apex of first segment, a broad mark on middle of second, basal half of third, narrow basal margin of second, fourth and the following segments and narrow apical margin of first segment, black. Slender, somewhat shining; mesothorax feebly punctured; metathorax finely rugose, the tubercles very short and obtuse; areolet minute, very narrow and open. Length 4 lines.

Cordova.

8. *Mesostenus communis*, n. sp.

♀.—Black; narrow orbits, transverse mark on clypeus, labrum, spot on mandibles, annulus on antennæ—incomplete beneath, line

on collar, tegulæ, spot beneath, a fureate mark on disk of mesothorax, scutellum, dot on postscutellum and apical margins of abdominal segments, white or yellowish-white; oblique mark on pleura, space behind base of wings, metathorax except broad black band at base, and the legs, dull honey-yellow; base of trochanters, posterior knees and tips of tarsi, blackish; most of posterior tarsi whitish; wings hyaline, dusky at apex, nervures fuscous. Metathorax rugulose, smooth at base, with two transverse carinæ, the posterior one produced into a prominent flattened tubercle on each side; abdomen very slender at base, the first segment with a small tubercle on each side before apex; areolet minute, open. Length $5\frac{1}{2}$ lines.

♂.—Very slender; annulus on antennæ broader and entire; face white, with two central black dots; two white lines before tegulæ; metathorax without tubercles; tips of posterior tibiae black, their tarsi white. Length 5 lines.

Orizaba; Cordova; Mirador. (Sumichrast, No. 104.) Common.

9. *Mesostenus chichimecus*, n. sp.

♀.—Black; face, mouth, orbits, and broad annulus on antennæ, white; collar, tegulæ, line in front, spot beneath, cuneiform mark on disk of mesothorax, scutellums, spot beneath posterior wing, pleura except narrow space beneath wings and anterior margin, flanks of metathorax, an elongate, subtrefoil mark on posterior face, base of first abdominal segment, rather broad apical and narrow lateral margins of all the segments, and a dot on lateral margin of second and third segments, yellowish-white; wings hyaline, apical margins narrowly dusky, nervures black; legs yellowish-white, tibiae and tarsi yellow, stripe on all the coxæ, all the femora above, middle tibiae above, four anterior tarsi and posterior knees black; seventh segment of abdomen as long as the second, while the fourth, fifth, and sixth are very short; the black space at base of seventh segment much extended, narrowed posteriorly, making the yellowish margin broad laterally and narrow centrally. Densely punctured, subopaque; metathorax rugose, rounded, without tubercles or spines; areolet quadrate, closed; abdomen densely punctured. Length $5\frac{1}{2}$ –7 lines.

Orizaba; Cordova. (Sumichrast, No. 87.)

10. *Mesostenus admirandus*, n. sp.

♀.—Black; face, clypeus except tip, labrum, base of mandibles,

orbits, tegulæ, line in front, spot beneath, spot on disk of mesothorax, scutellums, two round spots at base of metathorax, flanks, an elongate mark on posterior face broadly dilated at apex, most of pleura, base and apex of first abdominal segment, apical and lateral margins of remaining segments, and a triangular spot on basal middle of second segment, all pale lemon-yellow; broad annulus on antennæ white; wings hyaline, extreme apex dusky, nervures black; legs yellowish-white, posterior tibiæ and tarsi bright yellow; stripe on outside of all the coxæ, posterior pair within, trochanters above, stripe on anterior femora above, double stripe on middle pair and posterior pair except yellowish stripe on outside, black; four anterior tarsi dusky. Form same as that of *chichimecus*, shining, mesothorax strongly trilobate, sparsely punctured; metathorax transversely rugose; abdomen smooth and shining, sparsely punctured, seventh segment large, as in *chichimecus*. Length 6 lines.

Orizaba.

11. *Mesostenus arcuatus*, n. sp.

♀.—Black; face, clypeus, spot on mandibles, broad orbits interrupted posteriorly, collar, tegulæ, two very short lines before, spot beneath, round spot on disk of mesothorax, scutellum, spot on postscutellum, large mark on pleura, mark behind base of wings, spot on flanks of metathorax, an arcuated line on posterior face, and apical margins of abdominal segments, broad on the three basal and very narrow on the remaining segments, lemon-yellow; broad annulus on antennæ white; legs pale yellowish, the tibiæ and posterior tarsi bright yellow; spot on tips of coxæ, four anterior femora above and within, posterior pair except broad stripe on either side and the four anterior tarsi, black; wings hyaline, apex faintly dusky, nervures black. Subopaque, metathorax obliquely truncate behind, without tubercles or spines, the posterior truncation transversely rugose, the base smooth and shining, and beneath the transverse carina a row of radiating striæ; areolet small, 5-angular, outer nervure hyaline. Length $5\frac{1}{2}$ lines.

Orizaba.

12. *Mesostenus admotus*, n. sp.

♀.—Differs from *admirandus* as follows: The pale color more whitish; the metathorax broadly black at base, with a slender

black line down each side and a subapical black spot, and, instead of there being two round spots at base, there are three, the lateral one transverse, notched behind at the spiracles and confluent with spot on the flanks, the middle one a narrow transverse line bent at right angles posteriorly, the surface smooth with two transverse subareuate carinæ; the coxæ have an elongate black mark on outside, the posterior pair immaculate within; tips of posterior tarsi black; bands of abdomen white, dilated laterally, base of second segment without spot; the seventh segment large, as in the two preceding species. Length $5\frac{1}{2}$ lines.

Orizaba.

13. *Mesostenus mexicanus*, n. sp.

♀.—Black; face, mouth, orbits interrupted behind eyes, white annulus on antennæ, collar, tegulæ, line before, another beneath, two short discal lines on mesothorax, two oblique lines in front of scutellum, apex of scutellum and postscutellum, large elongate mark on pleura, mark behind wings, two elongate marks on posterior face of metathorax covering spines, a large ovate mark on flanks, posterior coxæ except outward black stripe, base and apex of first abdominal segment, lateral and broad apical margins of remaining segments, white; wings hyaline, apical margins narrowly dusky; legs luteous, tibiæ and tarsi yellowish, all the femora black above. Robust; thorax punctured; metathorax transversely striated behind, the striæ confused or radiating above the spines, extreme base smooth, the spines subacute, prominent; abdomen robust, smooth and shining, first segment squarely dilated at apex, gastrocoeli indicated by a transverse white spot. Length 7 lines.

♂.—More slender, antennæ and legs longer, knees and apex of posterior tibiæ black. Length 6 lines.

Orizaba; Cordova. (Sumichrast, No. 7.)

14. *Mesostenus lassatus*, n. sp.

♂.—Black; face, mouth, orbits, cheeks, scape beneath, collar, tegulæ, dilated line before, dot beneath, two short discal lines on mesothorax, scutellums, space behind base of wings, pleura except anterior margins, flanks of metathorax, two elongate spots on posterior face covering tubercles, coxæ, posterior tarsi, base of first abdominal segment and apical margin of all the segments, white; wings hyaline, iridescent, apical margin faintly dusky;

legs pale honey-yellow, spot on posterior coxæ above, their trochanters, base and extreme apex of their femora, their tibiæ entirely, four anterior tarsi, base and apex of posterior pair, black. Slender; mesothorax closely punctured; metathorax reticulated, tubercles small, robust, blunt; areolet small, 5-angular, open; legs and abdomen long, slender. Length 4 lines.

Orizaba.

15. *Mesostenus moratus*, n. sp.

♀.—Black; face, mouth, broad orbits, broad annulus on antennæ, collar, tegulæ, triangular mark in front and spot beneath, two abbreviated lines on mesothorax, scutellum, two oblique lines in front, spot on postscutellum, oblique spot beneath posterior wings, a larger one behind, two elongate marks on metathorax behind covering spines, a large oblique mark on each flank, coxæ except a short black line on posterior pair, first abdominal segment except subapical spot, basal corners of second segment and broad apical margin of second and following segments, white or whitish; wings hyaline, nervures brown; legs pale honey-yellow, tarsi paler, their tips black. Robust, opaque, mesothorax finely shagreened; metathorax longitudinally rugose, tubercles prominent, blunt; areolet 5-angular, open; basal segment of abdomen broadly dilated at tip. Length 4 lines.

♂.—Very slender; metathorax yellowish-white, a broad band at base continued posteriorly in a slender line for a short distance on each side, and a short stripe on apical middle, black; two lines on each of the four posterior trochanters and extreme base and apex of posterior tarsi (the remainder of which is white) also black; metathoracic spines short and acute. Length 4 lines.

Orizaba; Cordova. (Sumichrast, No. 76.)

16. *Mesostenus absolutus*, n. sp.

♀.—Black; face, mouth, orbits, broad annulus on antennæ, collar, tegulæ, line in front, two short discal lines on mesothorax, scutellum, two oblique lines in front, postscutellum, and pleura, white or yellowish-white; metathorax yellowish-white, with a broad black band at base, inclosing a round whitish spot on each side, from which band three black stripes proceed to the apex; wings hyaline, nervures fuscous; legs honey-yellow, coxæ whitish, the posterior pair with a slender black stripe, four anterior tarsi fuscous, posterior pair whitish with base yellow and apex black;

abdomen black above, first segment except a subapical spot, narrow lateral and broad apical margins of second and following segments and an acute ovate spot on basal middle of second segment, white. Slender, opaque; mesothorax coarsely and confluent pitted; metathorax rugose, tubercles flat and obtuse; abdomen smooth, slender; areolet 5-angular, open. Length 5 lines.

Cordova.

17. *Mesostenus accolens*, n. sp.

♀.—Black; face, mouth, broad orbits, annulus on antennæ, collar, tegulæ, broad line in front, spot beneath, two short discal lines on mesothorax, scutellum, two oblique spots in front, dot on postscutellum, pleura and space behind base of wings, white; metathorax tinged with honey-yellow, tubercles whitish, a broad central stripe dilated at base, and a narrow basal stripe on each side, black; wings faintly dusky, nervures fuscous; legs honey-yellow, four anterior coxæ and spot at base of posterior pair paler, four anterior tarsi dusky, posterior pair white, black at base and apex; abdomen black above, base of first segment honey-yellow, apical margin of all the segments rather broadly white, becoming narrower on apical segments. Opaque, thorax and abdomen smooth, metathorax coarsely rugose, tubercles flat, obtuse; areolet very small, quadrate, open; abdomen slender at base, remainder oblong-ovate. Length $4\frac{1}{2}$ –5 lines.

Mirador.

18. *Mesostenus novatus*, n. sp.

♀.—Much like *accolens*, but differs as follows: The annulus on antennæ broader; metathorax longer, the distance between base and tubercles greater, the broad black central mark is suberuciform, and confluent with a triangular spot at base; posterior coxæ entirely honey-yellow, their tarsi yellow at base and black at tips; first abdominal segment with the subapical spot continued to base in a slender line; areolet 5-angular, open; abdomen more elongate and narrow. Length $5\frac{1}{4}$ lines.

Mirador.

19. *Mesostenus stupidus*, n. sp.

♀.—Black; face, mouth, orbits, narrow annulus on antennæ, collar, tegulæ, line in front, spot beneath, two long longitudinal lines on mesothorax interrupted by the impressed lines, scutellum, spot on postscutellum, spot beneath wings, space behind

wings, flanks of metathorax, broad arcuated line on posterior face covering spines, coxæ, posterior tarsi except base and apex, and apical margins of all the abdominal segments, white or soiled white; wings hyaline, iridescent; legs pale honey-yellow, stripe on posterior coxæ, four anterior tarsi and apex of posterior tibiae, black or fuscous. Metathorax deeply excavate behind, the upper edge carinate and produced on each side into an obtuse tubercle; areolet minute, open; sutures of thorax crenulated, middle lobe of mesothorax with a crenulated central impressed line; antennæ long and very slender. Length 4 lines.

Orizaba. (Sumichrast, No. 61.)

20. *Mesostenus abactus*, n. sp.

♀.—Black; face, mouth, orbits, scape beneath, broad annulus on flagellum, collar, tegulæ, line before, central stripe on mesothorax, scutellum, line on each side before, band behind dilated behind base of wings, flanks of metathorax, two elongate marks on posterior face covering tubercles, pleura except an oblique line beneath wings, coxæ except stripe on outside of posterior pair and their base within, base of first and rather broad apical margin of all the segments, white; wings hyaline; legs pale honey-yellow, tips of all the tarsi black, the posterior pair yellow. Opaque, middle lobe of mesothorax finely aciculated transversely; metathorax rugose, tubercles transverse, very blunt; areolet very minute, open. Length 4 lines.

Mirador.

21. *Mesostenus admonitus*, n. sp.

♂.—Black; face, mouth, narrow orbits, annulus on antennæ, tegulæ, spot in front, another beneath, scutellum except base, spot on postsutellum, space behind base of wings, spot on each flank of metathorax, two elongate marks on posterior face covering spines, four anterior coxæ and trochanters, large spot on posterior coxæ above, tarsi except tips, base of first abdominal segment and apical margin of all the segments, dilated laterally, white or yellowish-white; wings hyaline, nervures black; femora and tibiae pale honey-yellow, the posterior femora black at base and apex. Head and thorax robust, abdomen slender; mesothorax densely rugose; metathorax rugose, posterior face coarsely reticulated, tubercles flat and obtuse; upper anterior angles of prothorax very

prominent and tuberculiform; areolet minute, open; abdomen smooth and opaque. Length $4\frac{1}{2}$ lines.

Orizaba.

22. *Mesostenus incertus*, n. sp.

♀.—Head, antennæ and thorax, black; face, clypeus, orbits interrupted posteriorly, spot on mandibles, annulus on antennæ, collar, tegulæ, line before, spot beneath, spot on disk of mesothorax, scutellums, two oblique lines in front, oblique mark on pleura, space behind base of wings, two elongate marks on posterior face of metathorax covering spines, a mark on flanks, and four anterior coxæ, white; wings hyaline, apex dusky, nervures black; posterior eoxæ, femora, and abdomen honey-yellow, remainder of legs bright yellow; four anterior femora more or less black behind; in one specimen the first abdominal segment is yellow with a large black spot near apex. Upper margins of prothorax prominent; mesothorax punctured; metathorax reticulated at base and sides, transversely striated posteriorly, spines prominent and subacute; areolet quadrate, closed; abdomen smooth and shining. Length $5\frac{1}{2}$ lines.

♂.—Upper lateral angles of prothorax tuberculiform; black spot on middle of scutellum; posterior eoxæ with black stripe, their femora entirely black; first and middle of second abdominal segment black, remainder of abdomen dull honey-yellow. Length $4\frac{1}{2}$ lines.

Orizaba; Cordova.

23. *Mesostenus animatus*, n. sp.

♀.—Head, antennæ and thorax black; face except broad mark above clypeus, mouth, clypeus, orbits broad on cheeks, broad annulus on antennæ, collar, tegulæ, line before, spot beneath, two short discal lines on mesothorax, scutellum, two oblique lines in front, spot on postscutellum, space behind base of wings, flanks of metathorax, two elongate marks on posterior face covering tubercles, large mark on each side of pleura, four anterior coxæ and trochanters, spot at base of posterior coxæ and their tarsi except extreme base and apex which are black, all white; wings hyaline, nervures fuscous; legs and abdomen pale honey-yellow, base and apex of first and apical margins of second, third, and fourth segments whitish. Smooth, shining; mesothorax strongly trilobate; metathorax rugulose, with two transverse carinæ, the posterior

one very prominent on each side; abdomen polished, slender at base and then oblong-ovate; areolet very minute, open; antennæ long and very slender. Length $3\frac{1}{2}$ lines.

Orizaba.

24. *Mesostenus pertenuis*, n. sp.

♂.—Honey-yellow; head, antennæ, pro- and mesothorax, scutellar region and anterior portion of pleura beneath, black; face, mouth, orbits, annulus on antennæ, collar, tegulæ, line before, spot beneath confluent with anterior margin of pleura, spot on disk of mesothorax, apex and sides of scutellum, two oblique lines in front, spot on postscutellum, pleura beneath, four anterior coxæ and trochanters, and posterior tarsi except base and apex, white; wings hyaline, iridescent, apex faintly dusky; tips of posterior tibiæ dusky, base and apex of their tarsi black. Slender, shining, feebly punctured; metathorax rounded, without tubercles; abdomen long, very slender throughout; areolet very minute, closed. Length $4\frac{1}{2}$ lines.

Cordova.

25. *Mesostenus collaris*, n. sp.

♂.—Honey-yellow; head, antennæ, prothorax, sutures of mesothorax, spot behind anterior coxæ, and space on each side of scutellum, black; face, mouth, orbits, annulus on antennæ, margins of prothorax, tegulæ, spot beneath, two dots in front of scutellum, spot on postscutellum, metathoracic tubercles, four anterior coxæ and trochanters, and second, third and fourth joints of posterior tarsi, white; wings hyaline, iridescent; posterior tibiæ dusky toward tips, basal and apical joints of their tarsi fuscous. Small, slender, opaque; metathorax coarsely reticulated, tubercles short, robust and obtuse; areolet minute, open. Length 3 lines.

Orizaba.

26. *Mesostenus arctus*, n. sp.

♂.—Black; clypeus, spot on mandibles, palpi, four anterior coxæ and trochanters and posterior tarsi except base and apex, white; four anterior legs pale honey-yellow; wings hyaline, iridescent, dusky at tips. Small and very slender, especially the antennæ, legs, and base of abdomen; mesothorax densely and coarsely granulated; metathorax coarsely reticulated, without prominent tubercles; areolet quadrate, closed; first abdominal segment narrow, of uniform width, with a prominent tubercle on

each side between middle and apex, apical segments dilated and subcompressed. Length $3\frac{1}{2}$ lines.

Orizaba.

Subgenus *CHRISTOLIA*, Brullé.

The form of the species belonging to this subgenus is robust, especially that of the head and thorax, the latter is gibbous, the metathorax short and broad, with the tubercles short and blunt, the legs more robust than usual, and the abdomen short, and broad ovate in ♀; areolet minute and open.

Body black, abdomen silvery-sericeous at apex.

Anterior wings with a median fuliginous subquadrate mark and apex dusky; tibial spurs black..... 1. *nubecula*.

Anterior wings hyaline, dusky only at apex; tibial spurs white.

2. *calcarata*.

Body black, marked with white or yellowish.

Posterior femora black above.

Metathorax with two round yellow spots covering tubercles; posterior tarsi black beyond basal joint..... 3. *zapotecus*.

Metathorax with two large subquadrate yellowish marks on posterior face; posterior tarsi entirely yellow..... 4. *mirabilis*.

Posterior femora yellow, black only at extreme base and apex.

5. *mirandus*.

Body black, abdomen and legs red..... 6. *abdominalis*.

1. *Christolia nubecula*, n. sp.

♀.—Black, opaque, subsericeous, third and following segments of abdomen strongly silvery-sericeous; annulus on antennæ above and apical segment of abdomen above, white; wings hyaline, apex dusky, an irregular brown spot on middle of anterior wing, nervures and stigma black; anterior tibiæ and tarsi pale brown. Antennæ nearly as long as body, apex robust; thorax strongly gibbous; mesothorax with some longitudinal wrinkles on each side of middle; scutellum small, convex, smooth and polished, sides strongly carinate; metathorax large, broad, depressed behind, reticulated, sides transversely striated, on each side above a short, very obtuse tubercle, stigmata large and ovate; legs slender, posterior pair unusually long; wings long, narrow, areolet small, quadrate, outer nervure obsolete; abdomen short, strongly arcuate, first segment slender, nearly as long as all the remaining segments, slightly and squarely dilated at tip, smooth and polished, stigmatic tubercles prominent and placed between middle and apex;

remaining segments together broad, fusiform, smooth, shining; ovipositor slender, longer than first segment, sheaths slightly thickened at tips. Length $5\frac{1}{2}$ lines.

Orizaba.

2. *Christolia calcarata*, n. sp.

♂.—Black, opaque, subsericeous; face, anterior orbits, clypeus, metathoracic tubercles and tibial spurs, white; wings hyaline, faintly dusky at tips, nervures and stigma black; anterior legs polish in front; apex of first obscurely, and the fifth and following abdominal segments margined posteriorly with yellowish. Form same as that of *nubecula*, with more slender abdomen; antennæ nearly as long as body, filiform, slenderer at tips: mesothorax finely and densely punctured; scutellum convex, shining, sides subcarinate, lateral region longitudinally striated; metathorax subexcavate behind, reticulated, the lateral tubercles short and very obtuse; areolet as in *nubecula*: abdomen smooth and polished, strongly clavate, first segment long and slender, dilated at apex, stigmatic tubercles prominent. Length 4–5 lines.

Orizaba. (Sumichrast, No. 61.)

3. *Christolia zapotecus*, n. sp.

♀.—Black; sides and middle of face, most of clypeus, labrum, anterior orbits, cheeks, annulus on antennæ interrupted beneath, tegulæ, spot on each side in front, spot beneath, two short discal lines on mesothorax, scutellum, two oblique lines in front, spot on postscutellum, spot behind base of wings, two round spots on metathorax covering tubercles, round spot on each flank, an oblique mark on each side of pleura hooked posteriorly, coxæ, spot on middle of first abdominal segment and apical margin of all the segments, white or yellowish; wings hyaline, dusky at apical margins, nervures black; legs strongly yellowish, posterior coxæ at base beneath, and short line or spot at apex above, their trochanters, all the femora above, apex of posterior pair and of all the tarsi, black. Form very robust, compact, opaque; mesothorax densely sculptured; metathorax broad, sloping rapidly behind, reticulated, tubercles very short, robust and blunt; legs long and robust; abdomen smooth; areolet small, subquadrate, open. Length 6 lines.

♂.—Differs from ♀ as follows: Antennæ entirely black; posterior coxæ beneath and apex above, their trochanters, femora, apex

of tibiæ and tarsi entirely, black, four anterior femora entirely yellow; abdomen short and very slender, the first segment entirely yellow except subapical black spot. Length 5 lines.

Orizaba. (Sumichrast, No. 22).

4. *Christolia mirabilis*, n. sp.

♀.—Head, antennæ and thorax marked as in *zapotecus*, all the markings except annulus on antennæ which is pure white, lemon-yellow; pleura yellow beneath; metathorax with two large subquadrate lemon-yellow marks on posterior face covering tubercles, as well as a large ovate spot on flanks; legs lemon yellow, a broad stripe on outside of posterior coxæ, trochanters above, all the femora above, four anterior tibiæ except tips, and their tarsi, and basal half of posterior tibiæ, black; abdomen black, narrow lateral and broad apical margins of three basal segments, and the remaining segments except a narrow transverse black band at base, lemon-yellow; wings hyaline, nervures black. Form same as that of *zapotecus*; meso- and metathorax coarsely rugose and more or less reticulated, the latter truncate behind, with short robust, obtuse tubercles; abdomen smooth and polished; areolet open. Length 6 lines.

♂.—Antennæ entirely black; wings dusky at apex; four anterior femora entirely yellow, posterior pair black above and at base and apex beneath, their tibiæ entirely black; otherwise as in ♀. Length $5\frac{1}{2}$ lines.

Orizaba.

5. *Christolia mirandus*, n. sp.

♀.—Color and markings as in *mirabilis*, except as follows: metathorax has a triangular yellow spot on each side at base; the pleura and also posterior coxæ are marked as in *zapotecus*; the legs are luteous-yellow, apex of four posterior trochanters, posterior knees, apex of their tibiæ and tarsal tips, black. Form more robust, abdomen shorter and broader, being almost oval beyond first segment; metathorax obliquely truncate behind, the tubercles very short and blunt. Length $5\frac{1}{2}$ lines.

Orizaba.

6. *Christolia abdominalis*, n. sp.

♀.—Head, antennæ, and thorax black; orbits interrupted on each side of insertion of antennæ and behind summit of eyes, clypeus, broad annulus on antennæ, line on collar, tegulæ, spot

in front, another beneath, spot behind wings, scutellum, minute line on postscutellum, two spots on pleura, the posterior one minute, two spots on metathorax covering tubercles, and a spot on flanks, white or yellowish-white; legs and abdomen honey-yellow; four anterior coxæ and posterior tarsi yellow; wings hyaline, apex faintly dusky, nervures black, basal segment of abdomen tinged with fuscous, with a minute pale dot on each apical corner. Form same as that of *zapotecus*; thorax densely and rather coarsely sculptured; metathoracic tubercles short and transverse; abdomen smooth and shining. Length 7 lines.

Orizaba.

Genus CRYPTANURA, Brullé.

In this genus the form is slender; regions of mesothorax scarcely elevated; metathorax without spines or tubercles; legs slender, the posterior pair very long; abdomen slender, the first segment long, straight, slightly and very gradually dilated at tip; areolet of anterior wings small, quadrate or subquadrate, closed.

The species may be separated as follows:—

Abdomen black, with one or more white spots at apex; legs red, most of posterior tarsi white..... 1. **Sumichrastii**.

Abdomen black, with narrow white bands; pleura, metathorax, and legs red 2. **delecta**.

Abdomen red, the first, and base of second and third segments black.

3. **acoluha**.

Abdomen yellow, banded with black; anterior wings with a fuliginous spot at tip of marginal cell 4. **pachymenæ**.

1. **Cryptanura Sumichrastii**, n. sp.

♀.—Black, sericeous; labrum, extreme base of mandibles, palpi, broad annulus on antennæ (spotted beneath with black), spot on scutellum, postscutellum, posterior tarsi except base and apex, one or more spots on apex of abdomen above, and most of venter, white; legs, including four posterior coxæ, and more or less of the first abdominal segment, bright rufo-ferruginous; anterior coxæ white in front, black on the sides and behind; anterior legs and intermediate tibiæ and tarsi somewhat luteous; posterior tibiæ except base, base of their tarsi and tips of all the tarsi, blackish; wings faintly dusky. Mesothorax finely and closely punctured, the dorsal lines well impressed; scutellum triangular, deeply excavated at base, with the sides acutely carinate, the

lateral region longitudinally, somewhat obliquely striated; metathorax clothed with a silvery pubescence, more dense on sides and apex, basal third almost smooth, bounded posteriorly by a sharp transverse carina which is angulate on the disk, the remaining portion transversely, irregularly striated, subtruncate behind with a subarcuate carina on each side on the verge of the truncation; metathoracic stigmatae large and ovate; wing nervures black, the arcolet, about the bullae and at tip of marginal cell dusky; arcolet subquadrate, closed; legs long and slender, claws simple; abdomen beyond first segment subfusiform, shining, convex, tip slightly compressed; first segment two-thirds as long as the remainder of the abdomen, slender at base, very slightly broader at apex; ovipositor at least half the length of the abdomen. Length 6-7½ lines.

♂.—Face, anterior legs in front, intermediate coxae and trochanters beneath, generally a spot on each side of pleura beneath, and a short line beneath tegulae, white; posterior femora more or less black at apex, their tibiae generally pale at base; otherwise same coloration as ♀, with the form much more slender, especially of antennae, legs, and abdomen. Length 5-6 lines.

Orizaba; Cordova. (Sumichrast, No. 1.) Common.

2. *Cryptanura delecta*, n. sp.

♀.—Black; face, mouth, cheeks, anterior orbits, annulus on antennae, collar, tegulae, line before, spot beneath, scutellum, dot on postscutellum, posterior tibiae except base and apex, and apical margins of abdominal segments, white or whitish; pleura, metathorax except base above, legs and base of first abdominal segment, ferruginous; wings hyaline, nervures black; tips of posterior femora, their tibiae and base and apex of their tarsi, black. Form elongate, slender; mesothorax finely sculptured; metathorax transversely striated, smooth at base, the posterior transverse carina obsolete centrally and prominent laterally; abdomen narrow, smooth, and shining, with long, slender first segment which is tuberculate on each side behind middle. Length 7½ lines.

Orizaba. (Sumichrast, No. 59.)

3. *Cryptanura acolhua*, n. sp.

♀.—Black; labrum and palpi yellow; mandibles picuous; an incomplete white annulus on middle of antennae, and a white dot on tip of scutellum; wings as in *Sumichrasti*; four anterior legs

yellow, their femora behind, all the coxæ and trochanters. and base of posterior femora, fulvous, remainder of their tibiæ yellow; abdomen fulvous, shining, paler at tip and beneath, first segment except base and spot on extreme tip above, base of second segment and basal margin of the third, black. Form same as that of *Sumichrasti*, with the sculpture much the same, the dorsal lines of mesothorax are, however, scarcely impressed; the basal segment of abdomen is polished, while the remaining segments, although shining, are covered with a very short, subsericeous pile. Length 7 lines.

Orizaba. (*Sumichrast*, No. 5.)

4. *Cryptanura? pachymenæ*, n. sp.

♂ ♀.—Bright yellow; spot on vertex covering ocelli and occiput, antennæ except base, three stripes on mesothorax—middle one broad, lateral ones slender and abbreviated anteriorly—confluent behind, spot on tip of scutellum, broad band at base of metathorax, short stripe at apex, spot and dot beneath wings, line behind anterior coxæ, base beneath and spot above at apex of posterior coxæ, posterior tibiæ except base, and their tarsi, posterior trochanters above and base and apex of their femora above in ♂, band on middle of second and third abdominal segments, and basal margins of remaining segments indicated only by dusky stains in ♂, black; wings hyaline, with a fuliginous spot at tip of marginal cell. Form slender; eyes large; head flat; mesothorax closely punctured, regions rather prominent; scutellum broad, convex; metathorax rounded above, with a transverse carina near base, posterior face subtruncate and transversely striated; areolet moderate, 5-angular; abdomen very slender at base, smooth and shining, clavate. Length 7 lines.

Var. ♀.—The black color predominates by reason of the markings being more largely developed; stripes on mesothorax broad and confluent; pleura entirely black, except an irregular yellow mark on each side; metathorax black, except the flanks and an arcuated line on posterior face; posterior femora black on their basal half above, and the bands on abdomen broader and more distinct; wings tinged with yellowish. Length $7\frac{1}{2}$ lines.

Orizaba; Cordova; Mirador. (*Sumichrast*, No. 54.) Parasitic on a species of *Pachymenes*—probably *obscurus* Smith.

Genus **HEMITELES**, Grav.

Abdomen black, banded with white.

Thorax black, marked with white.

Form short, robust; metathorax rather abruptly truncate behind, tubercles short and blunt; first abdominal segment white, with a black spot before apex..... 1. **lascivus**.

Form elongate, slender; metathorax gradually sloping behind, tubercles short and blunt; first abdominal segment black or red, white at apex..... 2. **patruelis**.

Form long, linear and very slender; metathorax without tubercles; hind coxæ red..... 3. **exilis**.

Form slender; metathorax without tubercles; abdomen clavate; hind coxæ white, black above..... 4. **rarus**.

Thorax ferruginous, mesothorax black above; abdomen black, with a white spot at apex and a pale band at base of third segment.

5. **irritatus**.

Thorax entirely ferruginous; wings hyaline..... 6. **ingenuus**.

Thorax entirely ferruginous; wings hyaline, with two fuscous bands.

7. **adjicialis**.

Abdomen white, banded with black; mesothorax black, with two white stripes..... 8. **adultus**.

Abdomen white and honey-yellow, with one or more black bands.

Metathorax without tubercles.

Mesothorax with two short white lines; metathorax with two oval white spots behind..... 9. **bimaculatus**.

Mesothorax with a central white spot; metathorax white, black only at base..... 10. **centralis**.

Metathorax with tubercles or spines.

Tubercles short, broad and blunt; abdomen honey-yellow, whitish at apex of first and second segments, and a blackish band at base of third segment..... 11. **junctus**.

Tubercles rather long and subacute; abdomen ferruginous, first segment black, base and apex white, also two apical segments, base of second black..... 12. **scitulus**.

Abdomen ferruginous and white.

Head and thorax black; collar, spot on scutellum and on apex of abdomen white; metathorax entirely black..... 13. **monilis**.

Head and thorax black, marked with white; metathorax ferruginous, with two white spots behind; apex of first, narrow apical margin of second and apex of two apical segments white; apex of wings dusky.

14. **admirabilis**.

Head and thorax black marked with white; metathorax black, the flanks and two spots behind white; apex and spot on each side at tip of second segment white, base of first and second segments dusky.

15. **sulsus**.

Abdomen honey-yellow.

Metathorax honey-yellow, with black transverse subbasal carina, and with two prominent white tubercles..... 16. *transilis*.

Metathorax entirely honey-yellow..... 17. *servilis*.

1. *Hemiteles lascivus*, n. sp.

♀.—Black; face, clypeus, palpi, orbits, cheeks, annulus on antennæ, collar, tegulæ, spot before, dot beneath, two short discal lines on mesothorax, scutellum, dot on postscutellum, spot behind base of wings, oblique mark on side of pleura hooked beneath, spot on flanks of metathorax, two spots at tip covering tubercles, coxæ and trochanters, posterior tarsi, base of first abdominal segment, apical margin of all the segments, broad on second, narrow and subinterrupted on remainder, all white or yellowish-white; wings hyaline, apex faintly dusky; legs pale honey-yellow, irregular mark on posterior coxæ and tips of all the tarsi, black. Robust, opaque, finely and densely sculptured; metathorax short, broad, truncate behind, the tubercles longitudinal, not prominent; legs robust; abdomen shining, ovate beyond first segment which is broadly dilated at apex; areolet 5-angular, outer nervure hyaline. Length $3\frac{1}{2}$ lines.

Orizaba.

2. *Hemiteles patruelis*, n. sp.

♀.—Black; face, mouth, orbits, cheeks, scape beneath, broad annulus on flagellum interrupted beneath, collar, tegulæ, line before, spot beneath, two short subtriangular discal lines on mesothorax, scutellum, spot or line on postsentellum, triangular space behind base of wings, pleura except upper and anterior margins, sometimes only a lateral spot, flanks of metathorax, two triangular spots covering tubercles, four anterior coxæ and trochanters, most of posterior tarsi and broad apical margins of abdominal segments, all white; wings hyaline, iridescent, faintly dusky at apex; legs pale honey-yellow, spot on posterior coxæ, the four anterior femora above, their tibiæ and tarsi more or less, posterior trochanters, extreme apex of their femora, and base, and apex of their tarsi, blackish, posterior coxæ within and annulus on base of their tibiæ whitish, and in one specimen the posterior coxæ are white with the base beneath and a lateral stripe black; sometimes the basal segments of the abdomen have a reddish tinge before the white bands. Opaque; metathoracic tubercles very

short and blunt; areolet 5-angular, outer nervure hyaline. Length 3-3½ lines.

Orizaba.

3. *Hemiteles exilis*, n. sp.

♂.—Black; face, mouth, orbits, cheeks, collar, tegulæ, dot beneath, two abbreviated discal lines on mesothorax, scutellum, spot behind, space behind base of wings, two spots at apex of metathorax, oblique mark on side of pleura confluent beneath with a mark which is acutely notched anteriorly, four anterior coxæ and trochanters, most of posterior tarsi and broad apical margins of abdominal segments, that on basal segment dilated anteriorly on each side as far as the tubercles, white; wings hyaline, iridescent, apex dusky; flanks of metathorax and most of legs honey-yellow; four anterior tarsi and posterior tibiæ behind dusky, apex of posterior tibiæ and base and apex of their tarsi, black. Elongate, slender; metathorax finely sculptured, round, without tubercles or spines, and only one transverse carina at base; areolet 5-angular, open; abdomen flattened, long, narrow, opaque. Length 4 lines.

Orizaba.

4. *Hemiteles rarus*, n. sp.

♂.—Black; face, mouth, orbits, cheeks, scape beneath, collar, prothorax except two lateral black dots, tegulæ, dot beneath, two dots on disk of mesothorax, large round spot on scutellum, space behind base of wings, pleura except large space beneath wings, apex of metathorax divided centrally by a black line, four anterior legs, posterior coxæ at apex and beneath, most of posterior tarsi and apical margin of abdominal segments, all white; posterior femora honey-yellow, their base and apex, their tibiæ except narrow pale annulus near base, and base and apex of their tarsi, black; four anterior femora faintly dusky above; wings hyaline, iridescent, nervures black. Slender; hind legs very long; abdomen clavate, first segment slender, with a tubercle on each side behind middle; areolet 5-angular, open; metathorax rounded, with a single transverse carina above the middle. Length 3 lines.

Orizaba.

5. *Hemiteles irritatus*, n. sp.

♂.—Head, antennæ, mesothorax and abdomen black; face,

mouth, broad orbits, cheeks, scape beneath, broad annulus near apex of flagellum, most of posterior tarsi and spot at apex of abdomen, white; remainder of thorax, most of legs, first abdominal segment except apex and band at base of third segment broadly dilated laterally, pale honey-yellow; scutellum above, basal suture of metathorax, posterior tibiae except base, and base and apex of their tarsi, black or blackish; mesothorax with two pale spots on disk; wings hyaline, nervures black; four anterior legs pale yellow, their coxae whitish. Shining; head broad, sub-buccate; antennae long; thorax robust; metathorax opaque, with two transverse carinae, the posterior one interrupted medially, no tubercles or spines; wings ample, areolet 5-angular, outer nervure hyaline; abdomen long, very slender at base, the first segment squarely dilated at tip. Length $5\frac{3}{4}$ lines.

Orizaba.

6. *Hemiteles ingenuus*, n. sp.

♀.—Head, antennae and abdomen black; thorax and legs ferruginous; anterior orbits, clypeus, spot on cheeks, broad annulus on antennae interrupted beneath, collar, dot beneath tegulae, spot behind base of wings, metathoracic tubercles, anterior coxae, base of posterior tibiae, most of their tarsi, apical margins of first six abdominal segments interrupted medially on fifth and sixth, and the seventh segment entirely, white; base of trochanters, apex of posterior femora, their tibiae, and base and apex of their tarsi black; wings hyaline, faintly dusky at apex. Opaque; metathorax finely rugulose, tubercles prominent and subacute; abdomen long and slender, shining at tip; areolet as usual. Length $4\frac{1}{2}$ lines.

Orizaba.

7. *Hemiteles adjicialis*, n. sp.

♀.—Head, thorax, and legs ferruginous; abdomen and antennae black; orbits, spot on clypeus, broad annulus on antennae interrupted beneath, collar, spot beneath tegulae, dot in front, spot on scutellum, spot behind base of wings, metathoracic tubercles, dot on each flank, dot on posterior margin of pleura, four anterior coxae above, spot on posterior pair above, base of posterior tibiae, their tarsi, broad apical margins of first, second, and third abdominal segments, and the two apical segments entirely, white; tegulae black, with a white spot anteriorly; scape reddish; posterior

tibiæ, and base and apex of their tarsi, blackish; wings hyaline, with the apex broadly, and a cloud across middle before stigma, fuscous. Opaque; thorax densely and minutely sculptured; metathoracic tubercles prominent and obtuse; areolet 5-angular, outer nervure hyaline; abdomen shining. Length $3\frac{1}{2}$ lines.

Orizaba. A very beautiful species.

8. *Hemiteles adultus*, n. sp.

♀.—White or yellowish-white; thorax strongly tinged with yellowish; legs pale honey-yellow; antennæ except broad annulus, mark on middle of vertex covering ocelli and extending on occiput, line on collar above, mesothorax (except a line on each lateral lobe, hooked anteriorly and two small dots on each side of middle lobe), base of scutellum and lateral regions, three narrow stripes on metathorax all connected at base by a broad band which incloses a pale spot on each side, tips of tarsi, spot near apex of first abdominal segment, a broad band near base of second segment, a rather broad band at base of third, and narrow basal margins of remaining segments, black; coxæ yellowish; wings dusky hyaline. Opaque; metathorax rugulose, obliquely truncate behind, the tubercles prominent, obtuse; abdomen shining. Length $4\frac{1}{2}$ lines.

Orizaba.

9. *Hemiteles bimaculatus*, n. sp.

♂ ♀.—Black; head except spot covering ocelli and connected with mark covering most of occiput, broad annulus on antennæ, scape beneath, prothorax except broad posterior margin, tegulæ, line before, spot beneath, another above (wanting in ♂), two short broad lines on disk of mesothorax, scutellum, postscutellum, space behind base of wings, pleura except black spot beneath posterior wings, flanks of metathorax and two ovate spots on posterior face, sometimes much reduced, four anterior coxæ and apical half of first three abdominal segments, white; apex of abdomen and legs pale honey-yellow; basal half of first three segments black, sometimes the apical half of the third segment is honey-yellow; posterior tarsi pale, black at base and apex, their trochanters and apex of their tibiæ dusky in ♂; wings hyaline, iridescent. Shining; metathorax rounded, transversely aciculate above, without tubercles. Length $3\frac{1}{2}$ -4 lines.

Orizaba; Cordova. (Sumichrast, No. 124.) Common.

10. *Hemiteles centralis*, n. sp.

♀.—Yellowish-white, legs and abdomen tinged with honey-yellow; large spot on vertex and occiput, antennæ except pure white annulus and scape beneath, mesothorax except quadrate white spot on disk, lateral region of scutellums, broad band at base of metathorax, anterior margin of pleura, tarsal tips, basal half of second abdominal segment and narrow basal margin of three following segments, black or fuscous; wings hyaline; four anterior coxæ and trochanters white. Smooth; head and thorax subopaque, abdomen shining; metathorax without tubercles or spines. Length 3 lines.

Orizaba.

11. *Hemiteles junctus*, n. sp.

♀.—Marked like *bimaculatus* except as follows: no spot above tegulæ; the annulus or antennæ interrupted beneath; the abdomen honey-yellow, with apex of first and second segments pale, and base of the third rather broadly black. More robust than *bimaculatus*, especially the antennæ; the metathorax has two very short blunt tubercles. Length $3\frac{1}{4}$ lines.

Cordova.

12. *Hemiteles scitulus*, n. sp.

♀.—Head and thorax black, legs honey-yellow, abdomen ferruginous; (antennæ wanting); face, clypeus, orbits, collar, tegulæ, line before, spot beneath, two short discal lines on mesothorax, scutellum, line on postscutellum, space behind base of wings, oblique line on each side of pleura, two spots on posterior face of metathorax covering tubercles, spot on each flank, four anterior coxæ, spot on posterior pair above, base and apex of first abdominal segment, and large spot covering two apical segments, all white; posterior tarsi pale, blackish at tips, wings dusky hyaline; middle of first abdominal segment and base of second blackish. Opaque; metathorax longitudinally rugose, tubercles prominent, obtuse; areolet 5-angular, outer nervure hyaline; abdomen depressed, first segment shining. Length $4\frac{1}{2}$ lines.

Orizaba.

13. *Hemiteles monilis*, n. sp.

♀.—Head, antennæ and thorax black; legs and abdomen ferruginous; annulus on antennæ interrupted beneath, collar, tegulæ, spot on scutellum, metathoracic tubercles and spot at apex of

abdomen white; wings subhyaline, with a dusky spot beneath stigma. Mesothorax shining, with finely impressed lines; metathorax rounded, densely and finely rugose, tubercles short, subacute; areolet 5-angular, outer nervure hyaline; abdomen depressed. Length $3\frac{3}{4}$ lines.

Orizaba.

14. *Hemiteles admirabilis*, n. sp.

♀.—Head, antennæ, pro- and mesothorax, scutellar region and pleura above and anterior margin beneath, black; remainder of pleura, metathorax, legs, and abdomen honey-yellow or pale ferruginous; orbits, middle of face, clypeus, labrum, spot at base of mandibles, annulus on antennæ, collar, tegulæ, spot beneath, two discal lines on mesothorax, scutellum, dot behind, spot behind base of wings, spot beneath wings, two spots at apex of metathorax, anterior coxæ and trochanters, posterior coxæ except base and apex, and apical margins of abdominal segments 1, 2, and 7, white; remainder of seventh segment black; base and apex of posterior tarsi fuscous; wings hyaline, with a fuscous cloud at apex. Opaque; metathorax without tubercles or spines. Length 4 lines.

Cordova.

15. *Hemiteles sulsus*, n. sp.

♀.—Head, antennæ, and thorax black; face, mouth, orbits, scape beneath, broad annulus on flagellum, collar, tegulæ, line before, spot beneath, two short discal lines on mesothorax, scutellum, pleura except anterior and posterior margins, spot on flanks of metathorax, two spots at tip covering tubercles, four anterior coxæ and trochanters, spot on posterior coxæ above, posterior tarsi, apex of first abdominal segment and spot on each apical corner of second, white; legs and abdomen pale honey-yellow; four anterior tarsi, tips of posterior pair, base of first and second segments of abdomen more or less, fuscous; wings hyaline. Slender; opaque; metathoracic tubercles very short and blunt; areolet small, 5-angular, open; base of abdomen slender, beyond which it is oblong-ovate, shining. Length $3\frac{1}{2}$ lines.

Orizaba.

16. *Hemiteles transilis*, n. sp.

♀.—Head, antennæ and mesothorax black; metathorax, legs and abdomen pale honey-yellow; face, mouth, orbits, cheeks, scape

beneath, broad annulus on flagellum, prothorax except black band above, tegulae, line before, dot beneath, two short discal lines on mesothorax, scutellum, space behind base of wings, pleura except anterior margin, flanks of metathorax, the tubercles, four anterior coxae, spot on posterior pair above, and two dots on apex of first abdominal segment, white or whitish; metathorax blackish at base; wings hyaline; tarsal tips black. Mesothorax with well impressed lines; metathoracic tubercles short and blunt; areolet as usual. Length 4 lines.

Orizaba.

17. *Hemiteles servilis*, n. sp.

♀.—Pale honey-yellow; head, antennae, mesothorax and scutellar region black; face, mouth, orbits, cheeks, broad annulus on flagellum, prothorax except black spot above and one on each side, tegulae, line before, spot beneath, two stripes on mesothorax slightly interrupted by the impressed lines, scutellum, spot on postscutellum, spot on pleura, two spots at base of metathorax, the tubercles, and four anterior coxae, white or whitish; wings hyaline, faintly yellowish, nervures pale; sometimes the mesothorax has a reddish tinge; scape of antennae reddish. Opaque; mesothorax with well impressed lines; metathorax with prominent transversely flattened tubercles; abdomen short ovate beyond first segment, which is smooth and shining; areolet quadrate, outer nervure hyaline. Length 3–3½ lines.

Cordova.

(To be continued.)